

Aviation News

McGRAW-HILL PUBLISHING COMPANY, INC.

SEPTEMBER 11, 1944



Heads Airline Policy Committee: As new chairman of the Airlines Committee for United States Air Policy, Alexander Burgess Royce leads the fight by 17 domestic airlines for regulated competition in post-war international air transport operation. A New York attorney, he joined the Committee in its reorganization as special counsel and after seven weeks of study of the Committee's stand, he became chairman. (Story on Page 45).

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World Air Force for Occupation

Organization reported being formed to work with occupying forces and to guard newly-freed nations.Page 7

★

X-Day Production Picture Forecast

Sharp cuts in Army plane orders seen as Allied victories mount; little change in Navy contracts predicted.Page 9

★

British Output Spotlights Ours

American production for 1944 expected to exceed 90,000 turned out by England from September 1939 through 1943.Page 35

★

Seek Civilian Lightplane Okay

Applications already being studied by WPB and WMC; new planes may go on market shortly after first of year.Page 13

★

See Vet Program as Pilot Reservoir

ATS envisions coordination with universal training system to extend technical education of students.Page 16

★

Air Power Blitz Role Credited

Allied superiority in aviation seen turning tide and speeding war's termination; importance of air control stressed.Page 23

★

Improved JP Systems Under Way

Pioneer Bell P-59A Airacomet, superseded by at least one other plane, expected to be relegated to training role.Page 11

★

CAB Opens Hawaiian Route Hearing

Six lines apply; Maritime Commission lawyers bolster Matson Navigation in attempt to get certificate for steamship firm Page 43

Motor-bike built for two



Here's an excellent answer to the need of airports for highly-mobile fire-extinguishing equipment. Manned by asbestos-clad firemen and loaded with Kidde carbon dioxide extinguishers, this motorcycle "crash truck" can rush right up to crash fires and other flames and snuff them out quickly under a blanket of carbon dioxide gas.

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THE AVIATION NEWS

Washington Observer

AIRFIELD MAINTENANCE—Cities and counties looking forward to obtaining nearby Army and Navy fields will find some money will have to be spent on their "gifts." Some reports are wondering how many realize what upkeep costs are going to be, judging and that while expense will vary widely, a good rule of thumb would indicate \$15,000 a year plus salaries. Many smaller communities will not be able to afford such a luxury with the business in sight, will look to state and federal governments to take over. The country may see a repetition of abandonment of WPA fields built in 1933 and 1934, when communities refused to maintain fields after the federal government had built them.

STEAMSHIP CAMPAIGN—In what appears to be a renewal of their campaign to obtain air rights for steamship companies, the House Merchant Marine and Fisheries Committee again will focus attention on the question with three days of public hearings this week. It appears that steamship interests will continue to push for air rights, and with increasing force from now on out. Chairman Bailey (D-N.C.) of the Senate Commerce Committee as well as Chair-

man Lea (D-Calif.) of the House Interstate and Foreign Commerce Committee are known to be looking with a wary eye on the steamship lines' case in this instance.

MANPOWER REFERRAL—The death of the highly-publicized manpower priority referral plan, which WMC Chairman McNutt launched July 1, was clearly pointed in by the WFB reconversion schedule announced this week. When the German war ends and the resumption of civilian goods is authorized on an unrestricted basis, the need for these controls will not only be no longer needed but the controls themselves will be in the way. WMC officials referred this week to a forthcoming announcement of a new manpower program, but the general opinion now is that it can be little more than a renewal of the controlled referral plan.

CHINA SURVEY—Purpose of Donald H. Nelson's trip to China, while still not formally announced by the President, appeared pretty well established last week. The WFB chief will make a survey to determine what amount of capital goods China needs for partial con-

B-17 replacements for U. S. Army's 8th Air Force lined up at airfield in Britain.





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THE PHOTOS

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Aviation News

McGraw-Hill Publishing Co., Inc.

VOLUME 2 • NUMBER 7

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World Air Police Force Reported Being Formed to Occupy Axis Areas

Organization expected to be installed to work with occupying troops in enemy territories and guarding newly freed nations.

By WILLIAM G. KEY

An international air police force will be an actuality far before any peace treaty, informed sources said last week, with an organization now being chartered. It will be installed as an occupation air force working with ground troops in policing Axis nations and guarding newly freed nations.

Germany itself is considered too small to be controlled efficiently by means of separate air forces. Russian, British and American ground troops will police sections of Germany. But such, under present planning, will contribute units to a joint air organization that can cooperate in any or all sectors as needed.

► Military Air Transport Service—Attached to this air force, it is indicated, will be a military air transport service for the Allies. This will operate at least until the manner and type of civilian air service for the defeated nation is determined. It is the consensus that neither Germany nor Japan will be permitted to operate commercial air service, and in the case of Germany some special system will have to be devised. This might take the form of individual foreign companies operating within that country, or an international corporation set up under a world organization to control German commercial operations.

It is believed that the United States will supply the major portion of any military transport service. This would be more practical in that the preponderance of transport types in the Russian and American Air Forces consists of Douglas planes and servicing would be simplified. It also is pointed out that many American bombers could be used to advantage in the Far Eastern war, that British bombers are suitable for European operations,

and that the Russians are strong in fighters of the ground support type that would be most advantageous in an occupation air force. **► Occupation Air Force**—The occupation air force, it is felt, will be designed not only to handle any uprising against Allied occupation of Germany but also in keeping on the lid in Europe until settlement to many problems can be found. During the transition period it will be necessary to police Germany and guard once-occupied nations such as France, Czechoslovakia, Austria, Hungary, Greece, Yugoslavia, Italy, Poland and the Low Countries against aggression or civil disturbance un-

til their own air forces can be built up, trained and equipped.

In this phase of operations it will be an international air police and may well form the pattern for whatever type may come out of the world peace organization.

Rockets Successful In Assisted Takeoff

Device not likely to be used by AAF, however, ATSC engineers predict.

Despite successful experimental use of rocket power to assist heavily laden airplanes in takeoff, the rocket-assisted takeoff procedure is not expected to see AAF military tactical use, engineers of the Air Technical Service Command, Wright Field, have disclosed.

Indications of experiments so far have been that the rocket assistance will have an extremely limited utility. Original purpose for the development was to enable planes to lift heavy loads into the



ROCKET ASSISTED TAKEOFF

Planes and smoke pour from a fixed assisted take-off unit on a B-29 under test at Wright Field, O., Headquarters AAF Materiel Command. MEC engineers have been testing rocket assisted take-off since 1940. Other tests have been made on A-20s, and the Navy has utilized Martin PM-1s. They are successful but probably will not be used tactically.

Cutbacks Aim to 15% on Planes Scheduled

A cutback of five percent in aircraft production is scheduled for the last few months of this year, says percent for the first half of 1945 and 15 percent for the latter half of next year under the present War Production program, subject, of course, to such revision as may be dictated by the military situation.

The schedules may be most recently modified call for 1945 planes in September and (this unit figure, under the cutback schedule will decrease slightly throughout the year. August will show 1,000 airplanes, 15 percent below the scheduled 1,200. The July total was 1,000.

Production officials were not concerned about the total, however, and considered August as a reference particularly gratifying in view of the large number of aircraft manufacturers who are operating on schedule. The slight reduction was attributed to the decision of the government to make formal acceptance of planes only after modifications for combat duty have been met.

Delays in acceptance due to this

cause should disappear soon because current off-the-line production has been substantially on schedule.

While it has been known that output of heavy bombers was running better than 1,000 per month, WPA officials finally disclosed that heavy bomber production actually has been about 1,500 a month since last June. Last January the government was aware that over 1,000 heavy bombers were produced that month. Actually the figure was well over 1,500. The last month having received several months before—nine months ahead of schedule.

At present it is expected there will be a decrease in heavy bombers, as a result of reduction of B-24 output, previously announced, coupled with the increasing production of the Boeing B-29 and the Consolidated Valiant B-24. Currently, production of Boeing's Superfortresses is being stepped up to meet the requirement of aircraft output, which heretofore has been concentrated on Flying Fortresses and Liberators.

Los Angeles municipal airport to LaGuardia Field, New York, 6 hours, 38 minutes, 30 seconds, average speed 370.082 mph, and West-Coast, one stop, Col. Cole A. Peterson, Los Angeles to LaGuardia Field, with refueling stop at Kansas City, 6 hours, 33 minutes, 30 seconds, average speed, 370.544 mph.

The two planes took off from Los Angeles within one minute. Peterson went to an end record was held by Howard Hughes, who flew a Hughes Special Mustang in a transcontinental flight averaging 371.27 mph with an hour, in 7 hours, 18 minutes, 35 seconds, Jan. 19, 1937.

Minn. Commissioner Acts to Close Port

Restraining order obtained to enjoin operation of unlicensed field at Anoka, 18 miles from Minneapolis.

Acting under new Minnesota aeronautics code, itself a subject of state court case not long ago, L. L. Schroeder, Minnesota aeronautics commissioner, has taken action in district court to close an airport near Minneapolis.

Legality of Minnesota's new Metropolitan Airport Commission was upheld by the state supreme court last summer, after a suit testing constitutionality of the law passed by the 1943 legislature.

Flights Denied. The law requires that all Minnesota airports be licensed. Schroeder has obtained a temporary order to restrain George W. Perce from operating an airport at Anoka, 18 miles from Minneapolis, on the grounds Perce has continued to use the field for commercial flying although a license was denied him last October. Request to make the injunction permanent is to be heard later this month.

Pierce's application was refused by Schroeder on grounds the airport must have approval of the Minneapolis-St. Paul airports commission since it is within that commission's jurisdiction, and proximity of the field to a radio station transmitter constitutes a hazard.

Glenn L. Martin Co. has been given the Peasland World Award for the best annual report of the industry for 1943. Consolidated Aircraft Corp. was runner-up.

ENGINEERING NEWS REVIEW

Improved JP Systems Under Way; Gas Turbines to Open New Power

Pioneer Bell P-59A *Aircroset*, superceded in speed and performance by at least one other U. S. plane manufactured by another company, already is expected to be relegated to job of training pilots.

U. S. research on jet propulsion has stepped up in the past three several systems are under development, with all indications that the pioneer Bell P-59A *Aircroset* already has been superceded in speed and performance by at least one newer U. S. plane built by another company.

It has already been indicated that the *Aircroset* will be used mainly for pilot training purposes.

As jet work continues, even by some major manufacturers of conventional air cooled aircraft engines, a consensus shows that jet engineering officials now prefer the gas turbine of all prime movers. Main reason is that in any power generation project, the turbine principle represents the ultimate in potential efficiency.

Carburetors Expected First. Actually, advent of jet propulsion might mean engineered gauges by surprise because it was thought, and with good reason, that if anything came along in the line of

new power plants, gas turbines in combination with propellers would emerge first.

These groups were looking to the limitations of the reciprocating internal combustion engine which had grown in size and complexity in the point where it did not seem practical to carry it much further.

Of much more seriousness, however, were the limitations of the propeller driven, which could not produce the thrust needed for greater speeds at greater altitudes. Jet propulsion was the key to that problem but it should not be overlooked that the turbines of gas turbines are closely connected with that of jet propulsion.

Problem of Materials. At the same time, JP and gas turbines have one great common problem, utilization of metals of materials capable of withstanding the high temperatures required for high efficiency. So far it has not been announced that such materials have

been developed but the probability of ultimate development has never been seriously questioned. When that day comes we shall enter into a power era of immense scope, and aviation should capitalize in greatest proportion.

The diesel turbine was developed to meet the demand for greater power output, by engines occupying less space, for steamship propulsion. If gas turbines could economically meet just these requirements for aircraft propulsion there would be ample justification for accelerated development activity.

But gas turbines do offer this still much more, for example:

1. Less weight per horsepower than other prime movers.
2. Power increasing almost with increasing rotary inertia and vibration.
3. No rubbing parts except bearings.
4. Uniform torque, no minimum expenditure of energy in the start.
5. Up to 40 percent or 50 percent better thermal efficiency, and also with much improvement in capacity.
6. Greater expansion per single unit.
7. Considerably less fuel per horsepower in combustion.
8. Lower lubricating oil consumption with no belated lubrication.
9. Lower maintenance costs.
10. Less control attention.
11. Simple construction and good durability.
12. Simple, cheap, reliable fuels.
13. More favorable recovery from the accident hazard viewpoint.
14. Adaptable to a variety of propulsion schemes.
15. Gas turbines employ the same operation processes as reciprocating engines. The main difference is that the compression and expansion processes are not performed

by air mail. All together, more than 1,800,000,000 pieces were carried during the last fiscal year, producing revenue. Walker estimated at \$103,000,000. The fact that domestic air mail service is on a self-sustaining basis leads him to believe airmail has been chosen by the public as the postal service "best suited to long-distance mail transport."

While schedules of foreign air mail routes are not made public because of the war, frequency of service to most destinations is better than ever before. Walker said, particularly in Central and South America and the West Indies.

Free Ballooning

Probability of revival of free ballooning in the United States, almost extinct since before the war, is suggested by the news that Dr. John P. Moore, internationally known pioneering meteorology balloonist, now associated with the University of Minnesota Institute of Technology has been granted a free balloonist license by approval of the NAA Centennial board, official American representative of the Federation Aeronautique Internationale.

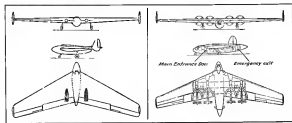
Record Category For Transports

NAA evidence based rules that craft scheduled for flight must first be inspected and approved.

Establishment of a new record category for transport planes has been announced by the recent board of the National Aeronautics Association, governing body of flight records in this country. The board ruled further that transport planes entered for record flights must first be inspected and approved by the Civil Aeronautics Administration.

Other actions of the board board in its first session of the war, as announced by Dr. George W. Lewis, research director of NACA, board chairman, include recognition of two official flight records for coast-to-coast flights by AAF pilots in P-51 North American Mustang fighters, delegation of Dr. W. H. Broadbent, chief, precision instrument section, National Bureau of Standards, to make a study of aerodynamic instruments needed for time and altitude trials of post-war aircraft with greatly increased speed and climb.

Two New Records—West-to-east nonstop, Lufthansa Jack Carter,



Sketches of Proposed Planes Using Jet and Gas Turbines. Two designs of projected airplanes utilizing jet and gas turbine power plants are shown in the above sketches in *The Aeroplane*, made by Sir Roy Feddes, chief engineer of Bristol Aeroplane, Ltd., from 1933 to 1942 and now special technical adviser to Sir Stafford Cripps, Minister of Aircraft Production.

On the left is the outline of a jet propelled airplane. On the right is a diagram of a tail-less 200-600 pound plane with gas turbines installed driving contra-rotating propellers and with jets discharging over the trailing edge of the wing. Some power plant could be installed in conventional-designed craft.



BLACK WIDOW'S UNLOADED IN PACIFIC

Somewhere in the Pacific, Northrop's P-61 Black Widow night fighters are unloaded for use of the 12th Air Force against the Japs. The planes are being towed to the assembly strip.

in the same chamber. As a result, the expansion ratio is not increased by the compression ratio, and expansion may be carried out to atmospheric pressure. Thus, in the perfect turbine, the full energies of the combustion mixture could be utilized for work.

► **Metals Heavily Taxed**—As greater horsepower are developed, the weakness are to approach pure rotary motion transfer is possible. In reciprocating engines, for example, the rated horsepower per cylinder is automatically limited by the ability of rods and pistons, connecting rods and crankshafts to withstand the terrific loads imposed by such massive impulses, and at the same time be of reasonably light weight.

It is impossible to conceive of a 4-cylinder engine producing 3000 hp (322 hp per cylinder). It is remarkable enough to have that much horsepower developed by 18 cylinders. Scram and vibration would be greatly reduced if 38 cylinders were used with a greater number of smaller impulses per crankshaft revolution required. Thus, the nearer a continuous absorption of energy is approached, the less strain is imposed on components resulting in lesser weight requirements and reduced vibration. Or, a greater total power can be produced per engine.

It is obviously impracticable to increase the number of cylinders much more in the reciprocating

engine because of the bulk and structural complexities. The turbine principle, therefore, provides the answer to the need for a more continuous application of energy to secure greater power.

WPB Seeks to Shift Work to Willow Run

Move to replace sharply reduced B-24 contract is watched by industry as possible key to cutbacks.

Results of War Production Board efforts to put some aircraft work in Ford's Willow Run plant to replace production of B-24 Liberators, which is being reduced sharply, are being watched by the industry for a possible precedent in future production cut-backs. WPB will encourage transfer of war production from plants that may be reconverted readily to civilian production to aircraft plants such as Willow Run. WPB officials have moved additional aircraft work into Willow Run if it can be done without interfering with other production schedules.

► **Porter Assigned to Job**—Stewart C. Porter, chairman of the military subcommittee of the WPB production executive committee staff, has been assigned to discuss full possibilities of moving additional aircraft work to Willow Run with officers of the Air Technical Service Command at Wright Field

Lockheed to Continue Boypower Program

Partial employment of students needed to maintain production of P-38s, B-17s, B-24s, bombers and Constellation, company says.

The "boypower" program of Lockheed Aircraft—under which high school boys work four hours and go to school four hours—will be continued into the forthcoming school year.

Decides of the company to continue the program was announced when it became apparent that every possible member of production would be needed to meet Lockheed's schedules on three P-38 Lightning and Boeing's B-17 Flying Fortress, the Navy's B-24 bomber and the Constellation transport.

► **Boypower Problem**—Cyrl Chappellet, Lockheed vice-president, voiced a concern of many aircraft executives when he said the "unfortunate attitude that the impending collapse of Germany would be an end of the war effort is depressing the production lines of the aircraft factories."

Chappellet said that manpower needs were growing more critical every day and that the demands of the Army Air Force for fighting planes were increasing at Lockheed rather than diminishing. He added that boypower was only a temporary help.

► **6000 Boys Employed**—Lockheed has utilized the services of about 6000 youths since the company started the boypower movement a year and a half ago. The company plans to put 1000 high school boys to work as the school year goes under way. The program is directed by Stuart L. Klingenstein.

The youths work from 7 to 11 a.m., from 11:30 to 3:30 p.m. or from 4 to 8 p.m. depending on how their academic program can be coordinated with shop work. Boys with vocational training are paid 75 cents an hour to start, while those without training start at 50 cents. They work 38 hours a week, including eight hours on Saturdays.

The program has been so successful from the point of view of local and state educators, who have cooperated fully in working out the program, that the school officials are interested in continuing the arrangement after the war as an instrument in vocational training.

Lightplane Manufacturers Seek Green Light for Civilian Aircraft

Applications of four or five firms already are being studied by WPB and WMC; new planes may be put on market shortly after next year.

Lightplane manufacturers are in process of obtaining a green light for civilian production, with four or five applications now being screened through the War Production Board and the War Manpower Commission.

Among WPB Chairman J. A. Krug has indicated WPB will take its hands off civilian production once it is given the go ahead sign, and the committee is the lightplane manufacturers will be given a free hand. WPB refused to discuss the manufacturers involved in the application.

► **New Lightplanes**—Resumption of lightplane manufacture probably would bring new lightplanes shortly after the first of the year on the civilian market which is now being studied by the Defense Plant Corp. through sale of surplus aircraft.

Sales of DPC equipment, except that withheld to complete leasing of South American plants, is virtually accomplished and the market now is chiefly being supplied by trainers from Army and Navy surplus. These planes bring about 60 percent of their list price to the government, but a downward trend in the bids has been in evidence for the past month.

First 2,500 or so lightplanes had actually returned to the government 105 percent of their cost that being based on the 60 percent average return from sale and payments made on leases of the planes is the WPB-CAA program.

► **Model Changes**—A return to civilian production will see some changes in models available to the public. Aeromacs is revealing two new models, one a low-wing, two-place type and the other a trainer type. Piper is known to have at least one model that the public has never bought, although first production undoubtedly will be of the Cub. Engineering on the new Crusier plane was completed before the war and some built, but never sold. Piper also has several new models in preparation, including a single-seat economy type and a streamlined pusher type.

► **General** has a streamlined version of the Skyfyer, understood to

be ready for production with many technical improvements incorporated. ► **Tricyclecraft** first will build its popular two-place model, is understood to have plans similar to those of Piper for other models.

► **Boeing** is expected to go into production with the present type. ► **High performance** Oliver Goetz has been in production through the war as a radio-controlled target plane and with improvements will be offered on the civilian market.

► **Boch, Lawton** and Bellanca are others that may be expected to go ahead, while there are other prototypes now being tested by other manufacturers who were not in quantity production before the war but may be expected to enter the field.

W. G. K.

Gliders Reclaimed

Three manufacturers are sharing in a reclamation project to restore to service damaged Army CG-4A gliders used in the training program for airborne troops in this country. Since the training takes place under simulated combat con-



PLEXIGLAS NOSE-TAIL FITS MARS OR B-26

With a few minor changes, the Plexiglas nose on the Army's B-26 Marauder becomes the tail enclosure of the Navy's Mars—a lot of ingenious adapting on the part of engineers at The Glenn L. Martin Co., builder of both planes. The Plexiglas "nose-tail" was the first all-plastic bombardier's enclosure to be used on combat planes and was made possible by the development of large-scale transparent plastic sheets by Johns & Man Co. In this view, the tail shown on left, the tail gives 180 degree plus vision. B-26 nose is shown right.

ditions, hundreds of the gliders have been damaged in the program, through landings in rugged country and other mishaps. Named as firms sharing in the reclamation contracts are Lauson-Kaufman Aircraft Corp., St. Louis, Pratt-Reed Corp., Deep River, Conn., and Commonwealth Aircraft Corp., Kansas City.

Cover Joins Bell As Georgia Manager

Cod Carl A. Cover, Army and commercial aviation executive, has joined Bell Aircraft Corp. as manager of the Georgia division at Marietta, replacing Omer L. Woodson, resigned.

Bell's Cover was called to active duty with the Air Force to supervise modification work on the B-29, which went into production at the Georgia plant last December. Cover worked as executive vice president of Douglas Aircraft Co.

He has had 30 years experience with engineering, flight testing and overall organization in the aviation field. At 55 he is the most senior flying executive in the industry and still is his own boss.

► **Worked With Mitchell**—Colonel Cover was active in formation of the first air corps maintenance depot and was executive officer in Gen. Billy Mitchell's at Langley Field when the famous bombing tests were made.

Before joining Bell, Colonel Cover worked with the Material Command at Wright Field.



CAA Expected to Get Strong Voice In Surplus Property Disposition

Senate-adopted measure provides that report containing CAA recommendations must be submitted to Congress before aircraft facilities can be sold.

It appeared that the Civil Aeronautics Administration would be given a strong voice in the post-war disposition of surplus airport properties as House and Senate conferees were working up Congressional action last week on comprehensive surplus property legislation.

A stipulation in the Senate-adopted bill provided that before airport properties are disposed of, a report containing the recommendations of the CAA must be submitted to Congress. There was no indication that the House would not go along with the Senate provision.

Public Service First Consideration.—The motive behind the provision, as expressed in a statement to the Senate by Assistant Secretary of Commerce William A. M. Barden, is to give the Civil Aeronautics Administration the first chance to acquire control of all surplus airport properties, and to prevent them from falling into the hands of private interests which might use them to the advantage of public aviation.

Congress has appropriated approximately \$400,000,000 for public airports during the war period. The federal government, which has sponsored these projects with the CAA, will retain title to them after the war. However, in many cases the Army and Navy have acquired, under deed or long-term lease, parcels of land adjacent to the airport or on it, particularly those areas upon which they have constructed buildings. In a great many cases the areas thus acquired by the government, and the choice building areas of the airport and the buildings constructed are hangars, operations buildings and other structures which would be useful in connection with air transportation at the airport.

Local Governments Favored.—The great majority of these properties adjacent to public airports will have to be disposed of after the war, since they no longer will be needed by the military services. If listed in which other real property in government disposal, there is a high possibility that they

will find their way into ownership and control by private individuals or corporations, rather than by the local government or the CAA.

In addition to these properties adjacent to public fields, there are a vast number of airport lands and aviation facilities which have been constructed either by or for the military services which will have to be disposed of after the war. Army and Navy have both urged that, as a measure for national defense, these properties be disposed of in such a way as to insure their continued aeronautical use.

These military fields will be able to "accommodate the operation of any possible commercial aircraft for many years to come," and "almost without exception . . . are so situated as to be of considerable commercial value," the Secretary of War reported.

ARCO Not Affected By WPB Reshuffle

Myron G. Tracy to become director of aircraft with departure of T. P. Wright.

Changes in War Production Board's administrative setup, so far as aircraft production is concerned will not affect the Aircraft Resources Control Office which will continue to coordinate the program of plane production for the armed services.

Abolition of WPB's Aircraft Production Board—recommended by its members as action known to have been favorably received by the government—will, if approved, result in the Joint Aircraft Committee becoming the directing agency for aircraft production.

Wright Goes to CAA.—Members of ARCO, including Myron G. Tracy, who will become director with the departure of T. P. Wright—announced as Civil Aeronautics Administration—see ARCO as the machinery already set up which will keep the aircraft program rolling.

When ARCO was first established, manpower and resources

Myron G. Tracy

for the aircraft program were quite problems which no longer exist as such. The Aircraft Scheduling Unit, to which priorities on materials were delegated, is functioning successfully and actively will continue with its present duties.

In the event that ARCO is eliminated, not now considered a possibility, some other agency will be delegated to carry out the policies set forth by the Joint Aircraft Committee as successor to the Aircraft Production Board.

Tracy plans to be the WPB (ARCO) representative on the Joint Aircraft committee and continue his present duties as production program chairman.

4 Agencies Assigned Plant Disposal Job

A four-agency committee to coordinate disposal or use of government-owned war plants has been set up under a directive of Director of War Mobilization James F. Byrnes with main objectives of insuring transfer of as many as possible of the plants to private enterprise—absorbing and distributing labor problems in connection with reconversion.

Jurisdiction of the committee—composed of representatives of the War Production Board, War Manpower Commission, Defense Plant Corp. and Surplus War Property Administration—is limited to government-owned plants valued at \$15,000,000,000.

Wacker Associates Plans.—Under the Byrnes directive, plants that the armed services do not wish to retain would be surveyed without delay to determine the most advantageous disposition possible with a minimum disruption of in-

dustry and labor. At the same time, the War Manpower Commission was assigned the task of preparing plans for absorbing workers in plants that will be returned in stand-by condition by the services. Surveys will be made by industrial engineers and industries will be apprised of the possibilities of use of such plant available.

Krug Seeks to Ease Plant Reconversion

Plane firms expected to use 15,000 equipment in transition period from war to peacetime production.

Aircraft companies with government-owned tools and machinery may plan to use this equipment in peacetime work during the period of transition, and can schedule civilian plane production to follow immediately behind production for the Army.

The whole trend of War Production Board thinking, as voiced by Acting Chairman J. A. Krug in conferences recently, is toward widely-bearing opposition with industry in reconversion at an accelerated pace, and toward enforcing regulations and red tape where they stand in the way of that reconversion.

Program.—WPB is working on plans for stimulation of government-owned machinery, Krug brought out in mentioning that many companies had already purchased the tools that could be advantageously used in civilian production, but in the meantime nothing will be thrown in the way of utilization of those still owned by the government.

Krug evidently sees WPB's role from now until the end of the war with Japan as that of a representative to American industry, using experienced industry men to determine convert and locating materials and supplies necessary to accomplish the job.

While the Production Resources Committee will continue to coordinate efforts, Krug indicated the bulk of the responsibility will be shifted to industry divisions and industry advisory committees, distributing the load from the long-time activities of WPB. The by-passing of PRC in the last Army cutbacks might have had something to do with this broadening of the base of cutback action, making a point of the fact that



Aeroproducts' Chief Test Pilot: Chief Test Pilot Roland E. Martin, of Aeroproducts division, General Motors, stands at the nose of a P-51 Mustang. Other, equipped with a four-blade propeller, after completing a test run with the plane. Martin, of Ft. Wayne, Ind., recently came to Aeroproducts with the opening of the plant's new flight test laboratory. He was test pilot and flight instructor with Chance-Vought, Northeast Airlines and Horace Turner Corp.

WPB does not bear the sole responsibility for reconversion, that much will depend on the Army and Navy in their contract terminations and on the Surplus War Property Administration in disposal of surplus military plants and equipment. WPB last week was named to set up policy on disposal of government-owned plants, but disposal procedures were left to WPB.

Most needed supplies should be available in quantity as reconversion reconversion become possible. Metals are in loose supply conditions, with steel plants operating at less than capacity and magnesium new in process of being out back 40 percent in output. Aluminum is plentiful, copper and zinc will be easy.

Babb Heads NAS

Northwest Air Service, Inc., operating repair stations for aircraft and aircraft engines, with base offices at Boeing Field, Seattle, is now headed by Charles H. Babb, following its recent sale and reorganization. Announcement was made by Joe K. Cranson, Alaska flyer, who is the company's new vice-president and manager. Babb is head of Charles H. Babb Co., international aircraft brokers

Aeroproducts Opens Flight Test Hangar

New Dayton unit gives propeller manufacturers complete test facilities, says General Manager Blanchard.

Opening of Aeroproducts' new flight test hangar at Dayton, Municipal airport, now gives the propeller manufacturer complete test facilities, Werner J. Blanchard, general manager, announced. All shaft testing heretofore has been done by another organization, but with the opening of the new hangar, under supervision of Charles R. MacNeil, chief engineer, the organization now has a completely equipped research shop.

Martin Chief Test Pilot.—Coincidentally with completion of the hangar and beginning of flight testing, Blanchard has announced appointment of Roland Martin, of Ft. Wayne, as chief test pilot. Martin, a former Cornell test pilot at Chance-Vought division, United Aircraft, also served previously with Northeast Airlines as chief test pilot and instructor, and with Horace Turner as charter service pilot and instrument instructor.

Martin and other Aeroproducts pilots will make flight tests on various types of aircraft, including the four-blade propellers used on P-63 Kingbirds, and P-51 Mustangs, two-blade full-leathering propellers, now under development, and dual rotation propellers now in manufacturing for unannounced military planes, and other new developments.

Canada Turns Back First Military Plane

First military aircraft in Canada to be transferred to civilian operators is an old Stinson Ryming biplane, which has been sold to Pacific Coast patrol operations and is now in use by Canadian Pacific Air Lines to ferry prospectors, mining equipment and supplies from Seven Islands, Quebec, to Halliday, Labrador, for Labrador Mining Co.

The Stinson has a disposable load of 4½ tons, a fuel capacity of 400 gallons, is powered with two 800 hp engines, has differential variable pitch propellers and 105 mph. cruising speed.

PRIVATE FLYING

ATS Sees Vets Education Program As Foundation for Pilot Reservoir

Program could be coordinated with universal training system to complete aviation studies and extend technical education of students, spokesmen for Aeronautical Training Society say.

One of the educational provisions of new "veterans" legislation and post-war universal service as a means of building a solid foundation for aeronautical training is being advanced by the Aeronautical Training Society. ATS now is examining post-war operations in the light of experience in training during this war, a program virtually closed down.

Spokesmen before Congressional committees have revealed that the Army plans to provide some aviation training under a universal service plan, but does not expect to attempt pilot training in the year of compulsory service now contemplated. Pilot training would be handled on a separate basis, Congressmen have been told.

Installations Owned by DFC — ATS is citing the fact that training installations used in the conflict program are virtually all owned by Defense Plant Corp., and that these facilities could be made available for training programs. It also feels that thousands of servicemen will want extended aviation flight and technical training under legislation that provides up to four years' education for veterans.

Other sources say that many of the nation's airports have become more air-minded during the war, now own their airports and have further educational facilities available for the program. Aeronautical engineering facilities and facilities have been built up and

furnish a ready-made reservoir into which wartime aviation personnel can be channeled for extended education.

Increased Competition Seen — Extended training will be necessary, ATS executives feel, because of the competitive picture in post-war aviation. Oliver L. Parks, president of Parks Air College, predicted in a recent ATS session that 90 percent of present fixed-base operators would be forced out of business unless they change their "slap-buggy, weeds-grow-up-on-the-fieldage" attitude toward their business.

Other trends influencing ATS thinking and discussed in recent sessions are:

• Towns should start with airports and "let them grow in keeping with community needs." Big runways and large hangars, Eugene Prybail, director of the Aviation Division of the Missouri Resources and Development Department, predicted.

• Carl E. Anderson, assistant vice-president of Embury-Hiddle Co., termed South America a ripe field for aviation training.

• The prospect of specialized airports was suggested by Thomas E. Fisherty, St. Louis aviation commissioner, who said it was reasonable to presume that eventually this country would have nothing



ALLIED AVIATION CORP.'S NEW TRIMMER AMPHIBIAN;

First flight pictures of the new Trimmer amphibian, plastic-bodied plywood three-place lightplane produced by Allied Aviation Corp., Coffeyville, Mo., are shown above, with views of the air-land-sea-capable tacking in the water and coming in for landing with landing gear extended below. The plane has 35 foot 8 inch wing span, 24 foot 9 inch fuselage, gross weight of 2,350 pounds. Top speed is listed at 140 mph., cruising speed at 115, landing speed at 45

with flaps. Range is 500 miles carrying two, 350 miles carrying three. Two 75 hp Continental engines power the plane turning two-blade wooden propellers of 6 foot 6 inch diameter, with pitch adjustable on the ground. Landing gear retracts mechanically into neatly faired nacelle. Manufacturer hopes to sell production version of plane for under \$6,500. First picture of the Trimmer appeared in Aviation News July 28.



B-29 Crews Above 30,000 Feet Breathe *without oxygen masks*



AiResearch Pressurized Cabin

Controls make it possible. They promise a new kind of air travel postwar

TWO ENEMY bomber bombs loads faster and farther than ever before, the giant Superfortresses fly the subsonic speed limit. Away up there—30,000 feet or more—where air is much too thin to sustain life without the aid of oxygen masks.

It was too thin. It isn't any more inside the Boeing B-29 Superfortress. In its pressurized cabin, AiResearch controls constantly keep the air pressure at a safe "low altitude." And at the same time these controls maintain a comfortable flow of fresh air through the cabin.

Here men can live and breathe as at home, without oxygen masks or heavy, cumbersome clothing, with out anxiety or distress no matter how high they fly.

AiResearch engineers worked long and closely with Boeing and the Army Air Force to perfect the pressurized cabin. You'll hear more about this miracle of air control. A military achievement vital now, it will help make possible faster, smoother planes to speed postwar air travel from the upper air in unbroken comfort. AiResearch Manufacturing Company, Los Angeles and Phoenix.



Superfortresses carry AiResearch Cabin Pressure Regulating Systems • Engine Oil Cooling Systems Engine Air Intercooling Systems • Supercharger Intercooling Systems • Automatic Fuel Flow Control Systems • Temperature Control Systems

but specialized airports, designed and constructed for a particular weight class airplane. Development of suitable airports must precede any extensive development of air transportation, he said.

Local airport enthusiasts too often overlook important factors of safety in site selection, with first consideration given to cost of land and access, convenience and accessibility.

The private plane industry, on the basis of surveys already made, should be four times as great within five years after the war as the combination of air transport and feeder airline business, even with transport business multiplied 10 times.

Minnesota Poll Shows Private Flying Plans

Minnesota Poll of Public Opinion, conducted by the Minneapolis Sunday Tribune, indicates one out of every five Minnesotans would like to own an airplane, and one out of four would like to learn to fly one. In its sampling of a cross-section of state opinion, the poll asked: "Would you like to own your own plane after the war?"

31% said "yes."

14% said "no."

5% said they are "undecided."

To the question: "Would you like to fly an airplane?"

37% said "yes."

70% said "no."

3% are undecided.

City vs. Farm Residents—The desire to own a plane was found to be only slightly greater among residents of cities (those with more than 2,500 population) and towns (those with less than 2,500) than among those on farms. The figures are:



DIRECTS PRIVATE SALES

William A. Marx, newly appointed private sales director of Consolidated Vultee Aircraft Corp., whose new regional office was opened in AVIATION NEWS last week.

cities are 1 city, 32%, towns, 30%; farm, 16%.

The growth of Minnesota's air-mindedness is shown in answers given to two other questions asked by Minnesota Poll interviewers.

While only 31 percent of the people said they had ever flown in an airplane, 61 percent said they thought they would use regular airline routes when traveling.

All Are Civilian—Of those who already have flown, 36 percent did so on a regular airline, and 61 percent in private planes, while 11 percent had done both. The other 3 percent had either flown in military planes or could not remember in which type of plane they had flown.

These questions were asked civilians and flightless do not take into account the thousands of Minnesotans now in aviation branches of the military services, whose aviation interest probably has been accelerated.

Show Major Interest—While these findings cannot be taken as an accurate forecast of the number of persons who actually will be flying planes in Minnesota after the war, the Minnesota Poll believes they point in the direction of a wide public inclination to take to the air. Extrapolating that percentage of families who would like to own their planes, 154,900 families of the 198,000 in the state would have planes.

By contrast, there were 538 planes and 2,828 pilots in Minnesota (military ships and pilots ex-

cluded) on January 1, 1944, and a peak of 833 aircraft January 1, 1940.

The CAA has forecast 300,000 planes in the United States by 1950, of which Minnesota's share would be 18,000. L. L. Schneider, Minnesota aeronautics commissioner, predicts 6,900 to 7,600 planes for the state.

Airport Taken Over By Otto Aviation

Otto Aviation Co. has taken over the Lake Superior airport at Marquette, N. J., on a long term lease and in addition purchased outright the assets of Poshie Service, a flying school which has been operating at the Marquette airport for a number of years.

Five planes were included in the purchase, all in the biplane class which had been used for student instruction and for rental.

Otto Airline Terminal—Borwan W. Otto, president, said Otto Aviation would operate the field as a terminal point in one of the routes of Otto Airline and will continue the flying school formerly operated by Poshie Service. Service facilities will be maintained for transient aircraft. The airport was leased from Steve Barabio, owner of a hotel and restaurant adjacent to the airport. The lease covered the actual landing field, plane maintenance and overhaul shop, a building divided into a 12 plane hangar, office and lounge.

Aero Insurance Opens New Offices

Aero Insurance Underwriters are setting up field offices throughout the country for development and servicing of aircraft risks.

Julius B. Gunstle, manager of the Kansas City branch office since 1938, has been appointed regional manager for the western states presently served by offices long established in Chicago, Kansas City and Dallas. He will retain his headquarters at Kansas City. J. Conner Whitted—James F. Conner, recently branch manager at Chicago, will have headquarters at Kansas City and assist Gunstle as field Underwriter in the region.

In Chicago, Gilbert D. Hilsenrath, Jr., formerly assistant manager, has been named branch manager and J. J. Mitchell, formerly office manager, becomes assistant to Hilsenrath.



...THE FUTURE IS OFTEN AS CLEAR AS A SUMMER NIGHT

The Lockheed Constellation

'Copter Delivery

An experimental Aeronautical Products, Inc., helicopter flew seven miles in 16 minutes from Cambridge, Mass., to nearby Belmont, after which William Filene Sons Co. of Boston announced the flight was the first helicopter flight in American history for commercial delivery purposes.

The ship, carried packages from the Filene warehouse to its Belmont branch store, taking off from the Charles River embankment area and landing in the parking space at the rear of the store.



Facts show the Constellation to be a superior airplane. Its importance, however, derives not from at-the-moment achievement or triumph, but rather from its significant place in the history of flight, in the long history of human relations. Scientific development moves slowly. Yet there are rare moments when the ingenuity of the drafting boards and the skills of the benches combine perfectly, swiftly accelerating the steady pace of progress. And at these moments, the future becomes as close and star-filled as a summer night, a future that in this instance pledges ever greater planes to come, ever wider horizons, and a true bond of understanding among the peoples of the earth.

The Lockheed Constellation

Highest speed of any transport

Longest range of any transport

Largest load-carrying capacity of any transport

Greatest rate of climb of any transport

And these performance factors make the Constellation the SAFEST of any transport.

**ANOTHER EXAMPLE OF
LOCKHEED LEADERSHIP**





QUESTIONS

- Q. I understand that the Constellation can fly on any two of its four engines. Is this true? —E. E. M., St. Louis
- A. True. It is unique in that it can CLIMB on two engines.
- Q. Does it fly too high for comfort? —F. S., Pasadena
- A. Actually it flies high FOR comfort. The Constellation operates over weather, yet cabin pressures are kept at levels as higher than many transport aircraft.
- Q. A friend of mine insists that the Constellation needs two airports to land it. What about it? —H. J. K., New York
- A. Landing speed is less than 80 m.p.h. About 1/2 airport.
- Q. How many people will the plane carry? —W. H. Mch., Boston
- A. Actually 30-40 full-cabin, sky-shower—34 passengers, airmail, 48 in baggage. Crew of 5.
- Q. I'd like to ride in a Constellation. —Joe H., Brooklyn
- A. The Army Air Force are taking all we make. After the war, you'll get your wish.

Send to your questions: Address: Lockheed Aircraft Corporation, Department 60-55, Burbank, California

LOCKHEED AIRCRAFT CORPORATION

FOR DEPENDABILITY IN FLIGHT
LOOK TO *Lockheed* FOR LEADERSHIP

THE AIR WAR

COMMENTARY

Imminence of German Collapse Spotlights Air Power Blitz Role

Allied superiority in aviation credited with turning tide and speeding war's termination; control of air now regarded as prerequisite to success of any major land operation.

With the imminence of German collapse, which means it may come in a few weeks and almost certainly will come within two or three months, a big question looms ahead, on the answer to which the future of western civilization may well depend: What part did Air Power actually play in the victory over Germany?

Over and over again during the past couple of years the statement has been made, from the highest authorities down, that air power would not win the war alone, but that without Air Power the war would not be won. Many air enthusiasts, however, have contended that if top strategy had been planned differently, if air had been given more to do with, and earlier, it would have accelerated success and would have shortened the war. This is almost certainly true and many a detailed argument will be put forth to prove the same. It never will be proved, however, and the soundest course will be to concentrate on what air power did accomplish within the limits set by the combined strategic planners, and what should be its place in the post-war world.

Air Power's Job.—At Casablanca in January, 1943, the Combined Chiefs of Staff (Admiral Leahy, General Marshall, General Arnold, Admiral King and their British opposite numbers) ordered a joint British-U. S. air offensive to accomplish "the progressive destruction and dislocation of the German military, industrial and economic system and the undermining of the morale of the German people to the point where their capacity for armed resistance is fatally weakened."

The phrase "fatally weakened" was interpreted to mean not absolute victory but such weakening

as to permit final combined operations on the Continent without excessive cost. The staggering defeat of the German armies and the complete re-occupation of France in thirteen weeks is an indication of how "fatally weakened" German military power has become.

Air Power Doctrine.—The unseen and ghostly battle which made those smashing breakthroughs, spectacular 30-mile-per-day dashes and capture of important centers with hardly the firing of a shot, was the preliminary gaining of air supremacy and smashing up of the enemy's communications. This doesn't show up on a newspaper map with light and shaded areas and arrows darting in all directions to show tomorrow's probable gains and longer range strategic moves. But without the air victory our forces would still be bottled up in the Cherbourg peninsula, if indeed they had not been hurled back into the sea.

Unwittingly General Marshall may have added a new principle

to the classic new principles of war when he made the following statement at a meeting of the combined chiefs of staff in London, June, 1943: "I will not commit troops to ground action without first having gained air superiority." Seven months later in Cairo General Montgomery put it this way: "The gaining of air superiority is the first requirement for the success of any major land operation."

This statement has been widely quoted, and is the opening sentence in the "Doctrine of Employment" of the Army's Field Service Regulation FM 100-36, COMMAND AND EMPLOYMENT OF AIR POWER.

Further Evaluation Necessary.—These tactical results of air power are apparent, and it is also now becoming generally realized that it would have been impossible, without preliminary use of strategic air power, to smash the enemy's aircraft and engine factories and other vital industrial targets. However, when the shooting is over, expert studies as to the exact effects of strategic bombardment will have to be undertaken by a qualified commission of trained specialists.

If this means it is hoped to ascertain the real effect of the terrific blitz against the German fighter factories, the systematic attempts to crush and keep smashed the ball bearing industry, oil refineries and synthetic oil factories, etc. Also such questions as this: What is the exact relation between the known results of strategic bombardment and the tactical victories on the battlefield? In just what way did such



OPEN AIR REPAIR SHOP IN MARIANAS:

Changing a 2,000 hp. engine and repairing damage to the fuselage of a Republic P-47 Thunderbolt at the TWA AAF Fighter Base in the Marianas is shown in this photograph of an open air shop for Thunderbolt overhauls.



L-1 TO EVACUATE WOUNDED IN BURMA:

AAP says this is the first amphibious Stearman L-1 Ventura plane to be used in this theater, shown arriving at Tagbasaok Saloon, Burma. It is being prepared for a flight deep in the interior to evacuate sick and wounded British West African and Chinese troops.

results affect the decision of the enemy high command? By means of such investigations a reliable Air Power estimate can be built up for the future and the full effect of this war's distinctive weapons be determined.

It seems generally agreed that when the entire war is over, air, ground and sea forces will be united in a single service. As air has proved to be the decisive factor, spearheading all land, sea and amphibious campaigns, it is highly important that the proper position on the team be maintained and that a thoroughly sound air strategy prevail.

NAVIGATOR

Eisenhower Visited Invasion from P-51

A North American P-51 Mustang was modified to give General Eisenhower his first glimpse of the invasion operation after D-Day, by removal of the fuselage tank and shifting the radio and battery compartments to make room for a passenger.

James Armistead, North American field representative, just returned from a flying trip to Britain and France, flew in the same airplane from France to England, during his inspection.

Used Against Robots—He said the British were using the Mustang for dive-bombing tanks, the Americans use the plane as a fighter and for escort work with high-altitude, long-range bombers, a



MAGNESIUM BOMBS LEFT BY FLEEING NAZIS:

Large magnesium bombs found along a runway of a captured German airfield near Orleans, France. The fleeing Germans left behind much equipment in good condition in their haste to escape the American drive.

AF Used A-20's To Dust Mosquitos

Mosquitoes in the Mediterranean theater are being dusted by A-20 Havocs, which scatter loads of insecticide up to 3,500 pounds over the infested area. Other types of planes carry oil sprays for small water targets such as canals. These planes are fitted with four 37-pail tanks.

Operations frequently are conducted in formation, the War Department reported. When the need for this type of operation arose, there was little special equipment for the job in the theater. However, about 6,500 pounds of specialized items were collected in the United States and rushed to the Mediterranean.

New Harmon Task

Lieut. Gen. Millard P. Harmon has assumed command of all Army units in the Pacific north and east of the Philippines.

General Harmon has been commander of Army Air Forces in the South Pacific and has newly created position will give him jurisdiction of all Army air operations in the entire Pacific area under Admiral Nimitz's command.

• War Department Bureau of Public Relations, Washington, has issued plans for reproduction as official tribute by U. S. Army to American war workers advertising review of official invasion photo and newest captured enemy films to be shown to war workers. The series is called Fighting Film.



REYNOLDS ALUMINUM:

To cool America's sky horses—Aluminum takes strange shapes

LOOK, for a moment, inside the huge, Hoch-long Plant No. 14 of Reynolds Aluminum...

Before you spend out a strange and fascinating night... sheets of shining aluminum are being stamped by rollers of huge machines into queer, twisting shapes... some that remind you of unusual-looking pudding molds... other shapes that look like tomorrow's kitchen utensils.

These strange shapes of aluminum are known to airplane technicians as baffles—and they are vitally essential to every air-cooled airplane engine. Fitted around the engine's cylinders, they are carefully designed to catch the flow of air... to redirect it so it would cool every cylinder.

It was in answer to an SOS call from the engine-makers that Reynolds Aluminum went into production of baffles. "We've hit a little neck," said the manufacturers. "You people have broken other

bottle necks in the industry—can you turn out baffles for us?"

Just to set up a plant of the size needed was a monumental job. It meant precision sheet metal work to extremely close tolerances. Stamping machines had to be assembled from the four corners of the country; best stamping equipment had to be built; a steam conveyor system designed. But five months after that SOS was received, the Reynolds plant was put into operation. Already the number of baffles turned out for America's warplane engines runs into the millions.

A PROMISE FOR TOMORROW

After the war, the great machine in this huge plant can quickly be turned to producing better, more efficient pots and pans than America's women have ever known. But for the present, Reynolds Aluminum is concentrating on "the future that awaits men"—that time between today and the day of complete victory for our forces.

REYNOLDS METAL CO.
Aluminum and Pure Zinc, Lancaster, Pa., U.S.A.

IN THIS REYNOLDS PLANT airplane engine baffles by the million are turned out from sheet aluminum rolled in other Reynolds plants.



REYNOLDS ALUMINUM BUFFLES (left) crowd the cylinders of the powerful Pratt & Whitney engine on these Grumman F6F Hellcat planes which the air that keeps the engine cool is efficiently spreading.

THE MIRROR of Reynolds Aluminum is pouring out an unforgettable flood in the new word movie, "A Festival of Faith." It shows how Reynolds escaped all perils and created a huge new source of aluminum, to speed Victory and provide an abundance of the most alloy's for post war uses. For a private showing to cross-section executives in your organization, write Reynolds Metals Co.



let's talk business... YOUR BUSINESS!

As an important part of its contribution to the aviation industry, Supply Division Inc. wants to help aircraft parts dealers make more money. In fact, we want to send a representative to call on you in person and give you the benefit of our 11 years of experience gained through daily contact with dealers throughout the country.

He will offer sound, practical, selling plans—suggest ways to increase your im-

mediate sales volume—recommended merchandising methods that will give you a valuable competitive edge in your sales area.

For this service there is no charge—you are under no obligation whatsoever. Just drop us a note today... and we'll soon be working with you to increase your present profits and help you prepare to take full advantage of the bigger-than-ever opportunities that will come with peace.

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PERSONNEL

Charles S. Mattson has resigned as director of industrial relations for Curtiss-Wright's Airplane division to work in Washington for several months as industry member of the National Airframe Panel of the War Labor Board. On returning to Buffalo, Mattson plans to open offices as a consultant in industrial relations problems. His successor at Curtiss-Wright will be appointed shortly. He joined the Glenn H. Curtiss organization in 1915 and has been with the company through all

William C. Lawrence is the new chief engineer of American Export Airlines and will head a new department formed by the combination of the former engineering sections of the operations and maintenance departments. He will report directly to the vice

president in charge of operations. Before joining American Export, Lawrence was director of development for American Airlines, a post he held for over a year following 22 months' service as chief engineering specialist with the War Production Board in charge of aircraft and equipment. Before his appointment with WPA, he was assistant chief engineer with American Airlines. He is chairman of the NACA sub-committee on induction system design.

T. W. Tishman has been named general manager of Bendix Aviation Corp. at Elkhart, N. Y., succeeding William L. McGrath, retiring. Tishman has been general manager of the Philadelphia Division of Bendix McGrath, who is retiring at his own request after 20 years' service with

incorporations. Mattson is author of "Knee Cancer in Aviation" and is credited with assisting in the evolution of the job evaluation system now used widely in the aircraft industry.

Richard E. Posthauer has been appointed manager of military contracts and service of the Licensing Division of Aviation Corp. He has a background of 16 years of aircraft activities and joined Posthauer Aircraft Corp., where he was chief of contracts and assistant to the president. For three years he headed the Dayton office of Vickers Aircraft and was with Sikorsky division of United Aircraft Corp. for 13 years.

Harwood Olsk, former traffic representative for Northwest Airlines at Minneapolis, has been named Portland district manager. William W. Terry has been selected for the post of cargo supervisor at the Portland-Columbia airport after receiving a medical discharge from the Army Air Force.



McGrath

the division, will continue as vice-president and a director of the corporation. He will handle special assignments for Bendix Corp. and have his headquarters in Elkhart.

E. K. Hubbard, II, has been appointed surplus materials officer for Pratt and Whitney Aircraft division, United Aircraft Corp. For the period necessary to complete the disposal of surplus materials, Hubbard is relieved of his duties as manager, spare parts sales. In his new position he will handle the eventual disposal of raw materials, materials in process and finished parts made surplus because of contract terminations and schedule revisions. Hubbard has been with United for the past 12 years, having joined Chance



JOHN MARTIN:

Dr. John B. Crone will join The Glenn L. Martin Co. Sept. 25 as director of research. He has been chief of the transportation unit of the Bureau of Foreign and Domestic Commerce, Department of Commerce, which has prepared several South American reports for the air transport industry. Dr. Crone was at one time senior transportation economist and editor of the monthly review of transportation statistics for the Interstate Commerce Commission. He is a former assistant professor of economics and transportation at Northwestern University and is the economics department at Harvard.

Vought Aircraft division in 1932 as secretary-treasurer.

C. M. Van Epps has been named sales manager of Goodspeed Aircraft Corp. at Danvers, located at Litchfield Park, Ariz. He joined the aircraft plant early in 1942 as a member of the sales division and handled many contracts out of Washington and Alcatraz until his promotion.

Raymond J. Cowden has been named general contract manager of American Propeller Corp., with complete charge of contracts and service for American Propeller blades throughout the U. S. and in foreign countries. The corporation is a subsidiary of Aviation Corp. Cowden was formerly with Licensing Division of American Corp., where he was assistant contract manager. In January he was named contract manager of the Licensing Division.

J. Don Jordan has joined the executive staff of Jendofast Aviation

Corp., producers of visual mounts. A specialist in product design and engineering, Jordan was formerly with Sherman and Associates.

G. G. Cadmus, formerly assistant chief engineer, has been made chief engineer at Fleetwing division, Kaiser Corp., Inc. He succeeds **R. W. Ayer** who joined American Airlines. Cadmus has been with Fleetwing since 1937 and has served as chief of structures, chief production engineer, executive engineer and then assistant chief engineer. **G. S. Thompson**, chief design engineer, who has been named assistant chief engineer to succeed Cadmus. He came to Fleetwing from Grumman Aircraft. **G. Mason** is now chief production engineer in charge of all production design and layout.

Brig. Gen. Albert J. Browning, an assistant director of military Army Service Forces, will be the War Department's representative on the War Contracts Price Adjustment Board, succeeding **Joseph M. Butler**, who resigned to resume his position as president of the Detroit Bank Dodge was formerly chairman of the Army Air Forces Price Adjustment Board in Detroit. He will be succeeded in his position as chairman of the War Contracts Board by **Col. Maurice Blumh** of Boston, who is now vice chairman.

Air Marshal Sir Harold E. Whittingham, director general of medical services of the Royal Air Force, has been given the John Jeffries Award, which is made annually by the Institute of the Aeronautical Sciences for notable contributions to aero-medical

research. Sir Harold has had 27 years' continuous service with the R.A.F. medical branch, chiefly in assignments directly connected with aviation medicine and research. He is a fellow of the Royal College of Physicians and Surgeons of Glasgow, Edinburgh and London. He has been honorary physician to the King since 1938 and was knighted in 1941. The award will be presented to him at the honors night dinner of the Institute in January.

G. W. Semons, plant suggestion coordinator for all Douglas Aircraft Co., Inc., factories is retiring after 22 years' service with the company. **L. G. Sierra**, general supervisor of the John Monarch plant's 45000 sq. ft. time standards department, will replace Semons as plant suggestion coordinator. Semons began working for Douglas as a bench machinist in 1923, successively becoming foreman, general supervisor, assistant plant superintendent and plant superintendent.

Ralph Buchanan, formerly assistant personnel director of Fairchild Aircraft Division, Fairchild Engine and Airplane Co., Burlington, N. C., plant, has been named acting personnel director on resignation of **Charles Adams**. Before Buchanan joined Fairchild last year he was district supervisor of the Civil Aeronautics Administration with headquarters in Charlotte.

Consolidated Vultee's Louisville Division announces that **William D. Lawie** has been promoted from night superintendent to superintendent of modification, replacing **Cliff White**, who was transferred to the Fort Worth division. **George W. McInerney**, formerly assistant chief inspector for the division has been appointed chief inspector replacing **L. R. Harberg**, also transferred to Fort Worth.



RESIGNS FROM BELL:

Omer L. Woodson, whose resignation from Bell Aircraft Corp., was announced in AVIATION NEWS Aug. 28. Woodson has been vice-president of the corporation and manager of the Georgia division. His duties at the Georgia division are being assumed by **Lawrence Bell**, president.

Brig. Gen. Harold A. Butler, formerly commanding general of the Air Service Command in the Mediterranean theater of operations, has been named commander of the Fairfield Air Service Command, Pittsfield, Ohio. **Col. C. H. Welch**, who assumed the Fairfield command last May, will remain as deputy commander.

Lieut. Col. George T. Van Der Huel, executive officer of the Marine Corps Office of Public Relations, has been given an undivided assignment. The new executive officer is **Lieut. Col. Edward H. Spangsh** who served in the Civil Aeronautics Administration and was a special naval attaché to the Union of South Africa.

Consolidated Vultee's Louisville Division announces that **William D. Lawie** has been promoted from night superintendent to superintendent of modification, replacing **Cliff White**, who was transferred to the Fort Worth division. **George W. McInerney**, formerly assistant chief inspector for the division has been appointed chief inspector replacing **L. R. Harberg**, also transferred to Fort Worth.

Marion McElreath has been appointed director of testing training for Pennsylvania-Central Airlines, or placing **Catherine Hartman**, who was named PCA's chief booker.

John W. Blitche has joined the staff of **Kornmeyer, Inc.**, Indianapolis, as technical writer. He was formerly employed by **Lockhead Aircraft Corp.** in a similar capacity.

WADSWORTH

in one year produced and delivered
2,564,913
of these



SMALL PRECISION PARTS

- This handful of 50 of these small cast parts weighs only 5.9 ounces.
- Yet this 5.9 ounces represents 6.65 hours of precision work, subject to most critical inspection.
- Through Wadsworth Engineering for Mass Production and Wadsworth Operating Economics, a 36% Cost Reduction has been effected and passed on to the customer.

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Engineering Design
Product Design

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Aircraft
Automotive
Boating
Electronics
Instruments
Machine Tool
Small Arms
Religion



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FORMER AERONAUTICS BUREAU COUNSEL CITED:

Stuart N. Scott, now general counsel for the Surplus War Property Administration, was awarded the Distinguished Civilian Service Award by Assistant Secretary of the Navy for Air **Artemus L. Gates**, for outstanding service to the Bureau of Aeronautics as counsel from Sept. 2, 1942, to March 11, 1944. Attending the ceremony were, left to right: Rear Admiral **Arthur W. Radford**, assistant to the Deputy Chief of Staff Operations, Air; Rear Admiral **Lawrence B. Richardson**, assistant chief, Bureau of Aeronautics; Scott; and Assistant Secretary Gates.

VITAL STATISTICS FOR AIRCRAFT DESIGNERS, BUILDERS, OPERATORS

FACTS ABOUT "FLYING HORSEPOWER"



Socony-Vacuum now has 19 great Catalytic Cracking units going full blast, producing "Flying Horsepower" for U. S. warplanes.

This represents the largest Catalytic Cracking Program in the world—11 years' research work—one new development after another—a \$90,000,000 investment in new refining facilities.

Socony-Vacuum's latest and greatest refining achievement is Thermoform Catalytic Cracking (TCC). TCC produces the highest quality base stocks of any process—and more of them from given amounts of crude.

Eight new Socony-Vacuum TCC units are "on stream."

Postwar, these new Socony-Vacuum developments and facilities will produce "Flying Horsepower" for the air giants you'll be planning and building.

SOCONY VACUUM OIL COMPANY, INC.

225 Broadway, New York 4, N. Y., and Affiliates: Magnolia Petroleum Co., General Petroleum Corp. of Calif.

New Super Aviation Oil Helps Keep Engines Clean!

Drawing upon 75 years' lubrication experience, Socony-Vacuum has developed a new super Mobiloil Aero for aircraft use, to serve as a running mate for the new Mobilgas. In flights covering thousands of air-hours, this new oil has proved its exceptional wear-resisting qualities. The outstanding feature is its resistance to smudge-forming deposits.



Get the Facts on **Mobilgas Mobiloil Aero**

Airline Earnings for 3rd Quarter Expected to Offset Lag in Half

Ability of company to hold down operating expenses in face of sharp increase in gross business is vital factor in translating gain in gross into net income.

While airline earnings showed a decided improvement during the second quarter, aggregate results for the industry as a whole during the first half of the year are well behind the like period of 1943. The trend of operations during the summer months, however, strongly suggests that by the end of the third quarter, remedial results will make for a favorable comparison.

Gains in gross revenues are important but it is the ability to control expenses to net that counts. Control of operating expenses is the big element here and varies for each carrier. Taxes have taken an increasing toll of earnings in recent times and are one item that is beyond management control. In any event, the net profit figure generally is a good indication of overall managerial results.

■ **PCA Leads in Gross Gain**—Of the lines examined, Pennsylvania Central showed the best increase in gross—a gain of 26.6 percent for the first half. The relative gains for the separate companies are shown in Table I. Best net earnings, however, go to United. These comparative earnings are presented in Table II. The tremendous gains achieved by all of the carriers during the second quarter are clearly evident by comparison.

For the first half of this year, United recorded an increase of 28.8 percent in net earnings. The probability of the second quarter is indicated by the gain of 54.7 percent over the like 1943 period. United, however, was quick to note that earnings during the second quarter were distorted in that this

period contained a credit of \$278,000, representing additional billings for military contract services performed during 1943.

■ **American**—An important qualification also is present in the reported results for American. This carrier shows a decline of \$648,840 or 22.9 percent for the first six months of the year over the same period of 1943. However, the 1943 results have been revised to reflect the provision of \$1,485,000 for excess profits taxes made last year and which the company believes is not now necessary. American feels that it is not subject to excess profits taxes for 1943 or thereafter for this year.

Similarly, Boeing's 1943 earnings have been revised downward to reflect the reduction in mail compensation for that year. Accordingly by comparison, this carrier was able to show a gain of 18.4 percent in net income for the first six months of this year.

Reported earnings in the air transport industry must be examined with the realization that they may be qualified at some future time. Retrospective action on mail compensation, military contract revision and tax adjustments will contribute to the uncertainty of published financial reports for some time.

■ **July Profit Up**—The current upward trend in earnings can be illustrated by the experience of Pennsylvania Central. After a bad first quarter, the company returned to the profit side during the second quarter. For July, 1944, net profit was \$93,614 or almost double the \$48,323 shown for July of last year. The current June

profit was \$63,371. Unofficial estimates place net for August around the \$100,000 mark.

Eastern Air Lines has yet to reverse its downward earnings trend. This carrier showed a decline of 27.9 percent during the second quarter on top of its disappointing action of the first quarter. The company's most profitable periods are generally the fourth and first quarters when it experiences the Florida traffic boom.

■ **TWA Recovers Loss**—TWA's earnings have not risen to the levels anticipated in many circles. In view of the company's intricate route position and its extensive military contract operations, more profitable results have been anticipated. For the first half of this year, net earnings were down by 22.4 percent. Some observers believe the carrier has difficulty in keeping its expenses under control in relation to its revenues. In this connection, financial circles have been following with interest the addition of several top aviation officials to the staff of Hughes Tool Co., which owns about 45 percent of TWA's capital stock. It is surmised that Hughes, through these key men, will try to place TWA on a more profitable footing.

Generally, the factors responsible for the acceleration of earnings during the second quarter were the continued high utilization of equipment and the return of additional planes to commercial service.

■ **Traffic at Peak**—Even more planes were returned to the lines during the third quarter and with traffic at peak levels, it is likely that this period may be one of the most profitable yet experienced by the industry. Further, in view of favorable weather conditions the third quarter is generally the most profitable of the year.

A slightly different factor may be the cancellation of the domestic military contract services, effective, for the most part, Sept. 1. These services helped absorb part of the overhead in addition to providing earned income. However, the airlines are planned to return to commercial operations as much as possible and present trends should compensate for any loss on the military.

TABLE I

	Total Gross Revenues		1944	1943
	1944	1943		
American	\$120,700	\$117,000	103.2	100.0
Boeing	100,000	95,000	105.3	100.0
Eastern	80,000	75,000	106.7	100.0
PA-Central	100,000	95,000	105.3	100.0
United	100,000	95,000	105.3	100.0
TWA	100,000	95,000	105.3	100.0

TABLE II

	Net Income		1944	1943
	1944	1943		
American	\$10,000	\$10,000	100.0	100.0
Boeing	10,000	10,000	100.0	100.0
Eastern	10,000	10,000	100.0	100.0
PA-Central	10,000	10,000	100.0	100.0
United	10,000	10,000	100.0	100.0
TWA	10,000	10,000	100.0	100.0

In 1/50 of a second it stops stock-still



When a glass pilot presses the button to adjust control bugs, he wants just a small fraction of a second.

But electronic controls take time to stop. They overreact.

So while electronic controls were desirable because they were less vulnerable and didn't freeze up, they had the disadvantage of overcontrolling.

That you see in the picture is the Lear solution. It is the Fanny Clock.

With this clock, controls stop instantly. For it stops stock-still in about 1/50 of a second.

There is nothing else like this Fanny Clock. It is built right into the Lear electric valve as a unit.

As with all aircraft equipment, this unit had to meet unusual and rigid requirements of space and weight. It had to have one power

but no else. In fact the requirements were so severe, old timers said it couldn't be done.

There will be many new concentrations and devices in the coming days of peace. Perhaps you are already planning one.

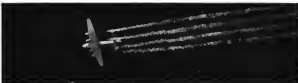
And perhaps you would welcome a meter like this and the Fanny Clock—or one of the other 150 Lear products.

That is why we are telling you about them now. We want you to know that products like these are being made, and that there is available the kind of engineering that made them possible.

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when Hell freezes over

Rocketing from the green hell of a security jungle airstrip where the temperature may be over 100° F. into atmospheric cold of 100° below zero is tough on a pilot—but let's plain murder on aircraft lubricants. Oil's heavy enough to stand tropic heat may congeal at high altitudes and jam leading gear, guns, bomb bay doors.

To solve the problem, a scientist at California Research Corporation, a Standard of California subsidiary

discovered something others had avoided. He added to oil a specially developed viscosity component. At ordinary temperatures it remained suspended, didn't affect viscosity. But as heat increased, the particles broke down to molecular size and helped thicken the oil. When the oil cooled, these particles grouped together again and the oil returned to its former viscosity.

So the Standard scientist had a new oil which broke all the rules. It thickened when heated, thinned when cooled—could even be argued to maintain the same viscosity through extremes of heat and cold.

You can't buy this miracle oil yet. It's still in the experimental stage. But, when it does go on the market, there'll be one less hazard in the sky, one more example of how Standard research makes the aviator's job easier, safer, wiser.



STANDARD OF CALIFORNIA



AIRCRAFT PRODUCTION

British Plane Output Figures Show Full Magnitude of U. S. Industry

American production for year 1944 expected to exceed the 90,000 turned out by England from September, 1939, through the end of 1943.

By SCOTT HERSEY

Latest disclosure by the British of certain aircraft production figures, heretofore kept well under wraps, points up the magnitude of the job done and being done by our own aircraft manufacturing industry, without detracting from the British record.

Advancements of our own industry have become so commonplace that the production figures lose their significance until comparisons are made, one at hand being a report of the British aircraft industry which shows the output of 37,273 planes for the year ending last March, 1944.

Combat Types Streamed—The British industry from September, 1939, to the end of last year, produced just over 90,000 aircraft of all types, more than four-fifths of

the present production being combat types and a large proportion heavy bombers. It is estimated that United States production this year alone will top that figure. Nearly 50,000 planes were produced here in 1943.

The United States aircraft industry has produced more than 200,000 planes since Pearl Harbor and from July, 1940, through 1942, the industry built 137,000 airplanes.

In Britain, as here, the true production yardstick is structure weight and the British point out that, while they produced 37,273 planes in the year ending last March, an increase of 10 percent over 1940, by structure weight the increase was 327 percent. This indicates the emphasis given to the output of heavy bombers. Struc-

ture weight of the 37,273 planes was 194,586,000 pounds. The United States industry is producing at the rate of about 100 million pounds a month.

The expansion of Britain's aircraft industry is shown in the following figures:

1939	28 planes	3,500,000 pounds
1940	8,234 planes	10,000,000 pounds
1941	13,617 planes	16,000,000 pounds
1942	18,940 planes	22,000,000 pounds
1943	37,273 planes	194,586,000 pounds

(Weight figures not available for all years.)

In January, 1940, the United States turned out only 267 planes—including spare parts, as compared with 9,113 weighing 161,400,000 pounds, including spares, in March of this year.

United States production in recent years:

1942	38,280 planes	45,790,000 pounds
1943	41,411 planes	50,000,000 pounds
1944	83,246 planes	103,000,000 pounds
1945	100,000 planes	120,000,000 pounds

(Estimated.)

The report from the British Information Services says that although Britain has concentrated on heavy bombers during the last year, the fighter production has been equally successful. The Services cite as an example of the complexity of the total program that Britain is producing 16 types of aircraft which were not in production in 1942, with new types to come into production within the next 12 months. The Merlin engine, of which total production was nearly nine times as great in 1943 as in 1938, is produced in 20 different types.

U. S. Using Over 75 Types—The *Average Year-book for 1944* reports that the United States now has in service more than 75 types of military aircraft resulting from transfers to the most devastating combat planes. It has at least five models of fighter planes with speeds over 400 mph, while England has three. Germany has and Japan none.

In addition to the complete aircraft produced, it is noted that the British have carried on an extensive repair program and the production of spares. In the year ending last March, major repairs were effected for 10,310 aircraft by the British, who report that if this figure is added to the total of 37,273 new aircraft produced, it is seen that 47,583 aircraft were made available. Even this figure, however, is about one-half of the total aircraft which will be produced in the United States this year at the present rate.



HEATERS FOR STRATOSPHERE FLYING:

Part of a shipment of Stratofortress heaters for installation in Army and Navy planes arrived a worker at the Surface Combustion factory, Columbus. It would require 160 furnaces for average-sized homes to equal the heat output, 9,000,000 BTU per hour, of this group of heaters.



PRESSURIZED TAIL CABINS FOR B-29

Tail gunners on Boeing's B-29 Superfortress are protected by heavy armor and thick bullet-proof glass. This photograph of a Hudson Motor Co. production line is one of the first close-ups of the pressurized tail cabins, one of the three large fuselage sections being now produced by Hudson for the B-29.

Unified Electrical Air Research Asked

55 of 67 papers read at 4-day meeting of engineers interested in aircraft problems.

An urgent appeal that aircraft engineers unify their research in problems of electrical engineering affecting aircraft was a major theme at a meeting in Los Angeles of a special technical convention of the American Institute of Electrical Engineers.

Of the 97 papers read is a four-day meeting, 53 related directly to aircraft problems. The aircraft engineers were told by Louis, Col. T. B. Mallady, of Wright Field, that in electrical research and development Germany is probably the most prominent ahead of the U. S., except in the generator field.

Vibration Study—He stressed the importance of aircraft vibration research and cited the need for progress in this field for the protection of an increasing quantity of aircraft electrical equipment that is subject to damage and failure by vibration cycles heretofore not considered, but present in aircraft operation.

Among the fields of critical re-

search listed were the consideration of problems of reliability, compactness, weight, high and low temperatures, cooling, dust, vibration, humidity, salt influence and radio noise.

Power Adds Nation-Wide Group—A nation-wide association of engineers embracing all branches of the profession is advocated by C. A. Fowles, newly elected president of the Institute. He is manager of headquarters engineering of Westinghouse Electric and Manufacturing Co.

New De-Icer Model

A new type de-icer, described as thinner and lighter, yet developing stronger ice-breaking characteristics, is now being installed on military and civilian aircraft. Known as Type II, the new version of the pulsating-booster de-icer developed by B. F. Goodrich Co. has been approved by CAA and the Army Air Force.

Special Fabric Used—James B. Bodier, of Goodrich's nonmetallic division, said an over-all ply of special elastic fabric in the new de-icer greatly increases its resistance to tearing, and that by enclosing the wire lead at the attachment edge in the special ply a thicker cross-section has been

made possible which improved the device aerodynamically.

Like previous de-icer models, it is attached to the leading edges of the wing and tail surfaces and contains tubes which expand and contract at the operator's will, breaking up the ice and causing it to be carried away by the airstream.

Full-Span Wingflap New P-61 Device

Gives Black Widow increased air braking power and permits slower landing on blocked out fields.

Disclosure is now permitted of a hitherto secret device on Northrop's big P-61 Black Widow night fighter, designed to replace the conventional aileron and permit use of full-span wingflaps for increased air braking power and also permit slow landings on blocked-out airfields.

The device, termed "retractable ailerons" by John K. Northrop, president and chief of design, is a completely new, semi-rigid, semi-circular, semi-cylindrical metal strip, dotted with holes. The strip is entirely concealed in a slot near the trailing edge on the outer wings of the plane when not in use.

Operation—These are mechanically attached to two small conventional type ailerons located at each wing-tip of the plane. In using the retractable ailerons to turn the plane in the air, the pilot operates the controls in the conventional manner. As he does so, the retractable ailerons rise from their slots and the scoops "pop" the airway, almost instantaneously eliminating the lift of the wings.

Through the use of the device, pilots can turn on the proverbial die despite the weight of the craft, operating in full light without danger of immediate stall.

Full Span Wingflaps Needed—Design of the retractable ailerons resulted from the need for full span wingflaps with which the Black Widow is equipped. Conventional type ailerons take up much of the trailing surface of airplane wings and in order to obtain as much of the wing edge as possible to a leading surface, the new device was designed and tested.

Conventional fighter planes, because of their great air speeds, must necessarily land at high speed. Conversely, night fighter action must be able to land their craft safely in short distances in complete darkness.

LOW-PRESSURE PLASTIC LAMINATES

made with

FIBERGLAS®

offer plane builders

many advantages



A new method of joining and bonding to the fabrication of air space, thus providing lasting for fast cuts.

Recent developments in the field of low-pressure laminates may make possible substantial economies in the production of Postwar Aircraft. Thanks to new developments in resins, which cure with little or no pressure, and with modern heat, large and complex parts can now be fabricated without expensive dies or costly metal-forming machinery.

For many uses, these new laminates are superior to metal. For instance, some have a greater strength-to-weight ratio than metals, together with higher impact strength. These laminates also possess dimensional stability and low moisture absorption. Such laminates are made with *Fiberglas Fabrics*—strong, durable cloth made from

fine glass fibers twisted into yarns for weaving.

Fabricators of low-pressure laminates have done wonders in integrating the unusual qualities of *Fiberglas* into their finished products. For *Fiberglas Fabrics*, these advantages, possess great tensile strength with light weight, dimensional stability and moisture resistance.

These fabricators have also been ingenious in forming unusual shapes and parts—sometimes, a combination of several parts. This, in turn, may provide still more production economies through the elimination of assembly operations.



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PT 10-20, 12, 14, 16, 18

OTHER AIRCRAFT USES OF FIBERGLAS

AIRCRAFT INSULATION

Fiberglas insulation, Type B-1, is a light weight, acoustical test of the glass fibers. It is flexible and has compressive low moisture pickup, even under conditions of steam-heating. It is available in 1 lb and 15 lb, 8, density. Its strength construction is used for aircraft and general building purposes.

AIRCRAFT BLANKETS

Autotypes of *Fiberglas* thermal insulation, *Heat Shield* blankets (used in Boeing B-29) are made of *Fiberglas* insulation. Heat, Type B, tested with *Fiberglas* Blanket and tested with glass fibers. Available in 1 lb and 15 lb, 8, density. They are especially used to insulate against heat from engine, fuel storage tanks, other high temperature pipes, etc.

TAPES

Another all-glass product is *Fiberglas* tapes. With extremely wide for building, repair, protection and other electrical equipment, many other applications have been found for these tapes. Inexpensive, because of the low cost of covering of *Fiberglas* insulation on fast cuts, they are valuable insulating pipes, etc.

COATED FABRICS

The use of *Fiberglas* cloth as base fabric for coating with various resins, epoxies, and other coating materials, provides a finished material having new and unusual qualities—great dimensional stability and strength under the most severe conditions of handling, moisture and chemical attack. Widely used in the fabrication of gun boats, night armor, insulation, covering, flexible structures, tanks, fuel cells, diffusers, beds, many other items.

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Pay Load Increased 200 Pounds!

Is this an acceptable item for airplane designers and users? Their answer will be an enthusiastic yes, especially since this substantial saving in weight is accompanied by an improved reliability and increased service life for radio equipment.

Through the cooperation of radio designers and manufacturers, it has been found that electronic equipment, when designed for installation as Robinson units, can be greatly lightened, with the assurance that vibration and shock no longer will mar this equipment and impair dependability. It is now unnecessary to "load up" the chassis and case to withstand the vibration of modest high-power engines and the shock of landings and take-offs.

The Robinson Vibrocheck[®] suspension, used in our wingless to protect vital radio and delicate flight instruments, absorbs better than 90% of all engine and propeller vibrations and, in addition,

has the reserve capacity to protect the equipment under severe emergency conditions.

The Douglas DC-4, for example, which may be widely used on a post-war commercial transport plane, carries a radio weight of 660 pounds. A 20% saving in weight would increase the normal payload by 190 pounds. Since \$131.40 is the average reduction per year of a pound saved as a commercial transport, \$24,054.00 would be added to the potential annual payload.

Tomorrow's greater airlines will carry more radio and electronic equipment than ever before, but, with Robinson Vibrocheck[®] suspension, the weight of this vital safety equipment can be drastically reduced.

Manufacturers taking advantage of this potential weight saving development will gain a distinct advantage in the competitive post-war commercial field.

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RETRACTABLE AILERONS SECRET DEVICE ON P-61

Radically new is this retractable aileron of Northrop Aircraft's Black Widow. It is a heavily stressed scoop which rises from the surface of the wing to be disposed, the scoop on the opposite wing remaining flush buried. It permits integration of the normal ailerons with flaps for full-span flap action in slow landings. Inspecting the scoop are Harold Pedersen (left), Northrop flight field crew supervisor, and Ray Hammett, Northrop field foreman.

Electric Powered Planes Studied

Would eliminate much of air resistance caused by engine nacelles built in wings, engineers point out.

Possibility of airplanes powered with electric motors was discussed at a recent meeting in Los Angeles of the American Institute of Electrical Engineers, with advocates of the proposal contending that use of electric drive on multi-engine planes would eliminate much of the air resistance caused by engine nacelles built in the wings.

Drag is estimated to waste from 20 to 40 percent of the horsepower output of engines, and some electrical engineers point out that electric motors, being smaller, can be submerged in the wing structure, offering virtually no resistance to airflow.

Joint Paper Presented.—Lieut. Col. T. R. Holaday, of the Army Air Forces, William L. Berry, of Hughes Aircraft Co., and Frank W. Golsky jointly presented a paper on the subject.

They discussed the possibility, too, of placing the power plant in the fuselage. With electric drive, the power plant—consisting of new high-speed power sources and electric generator, could be placed

in the fuselage, the engineers were told. This concentration of weight in the center of the plane, they held, would increase the maneuverability of the craft and provide a convenient "shock-absorber" to withstand the recoil of heavy machine guns and cannon.

Pusher-Type Propellers.—It also was pointed out that, since motors could be sunk in the wings, the electric drive system would make possible the use of pusher-type propellers.

Great disadvantage of electric drive in airplanes, it was pointed out, resulted from increased power plant weight, lower efficiency between fuel tank and propeller shaft and increased cost of power plant, but the engineers contended these could be offset by using fewer and lighter materials in the power plant, propellers, plane structure and accessories and by retooling the planes to further eliminate aerodynamic drag.

Aero Meters Formed

A new Canadian company, Aero Meters, Ltd., has been formed to take over and operate the instrument plant of Sulston-Henley Co., Ltd., at Leaside, Ont., suburb of Toronto, a plant recently acquired by the Canadian government.

L. F. Winchell, vice-president and general manager of Innde &

Dutch Paper Co. of Canada, is president of Aero Meters Ltd. and W. R. McLachlan, director of manufacturing of the John Inglis Co., Toronto, vice-president.

East Coast AWPC Output up Sharply

Production of eight firms is reported as \$1,500,000,000 for first six months of 1944 compared with \$617,000,000 for entire industry in first half of 1941.

The eight company members of the Aircraft War Production Council, East Coast, produced \$1,500,000,000 worth of airplanes, engines, propellers and equipment for the armed forces in the first six months of this year, compared with \$617,000,000 for the entire industry in the first half of 1941. These figures were disclosed by Victor Emanuel, head of Aviatron Corp., and retired president of the Council in a report to the Board of Governors. Emanuel will be succeeded by Alfred H. Mace, president of Republic Aviation.

Up 540 Percent in 3 Years.—In September, 1941, he reported, the companies turned out 2,953,099 pounds of airplanes. This monthly rate has been increased by more than 500 percent in less than three years. The 1942 production of 11,985 units was more than surpassed in less than six months of 1944.

Similarly, East Coast airplane component now utilizes more floor space than the entire industry in 1941 and Emanuel reported that member company employees totals have risen from 1,650 in Nov., 1941, to approximately 20,000 in August, 1944. A major portion of these started with little or no experience and have been trained from the ground up in the plants in which they are working.

Employee Output Up.—The industry has not only staffed its expanded production facilities, but has increased the per employee output in terms of pounds of airplanes per month by approximately 185 percent in a little more than two and a half years. This shows why 230 percent more employees are now producing 540 percent more airplane weight than in September, 1941.

Member companies of the East Coast council are Aviatron Corp., Bell, Chance Vought, Curtiss-Wright, Eastern Aircraft Division of General Motors, Fairchild Engine and Airplane, Glan L. Martin Co., and Republic Aviation.

The Stake of the United States in Expanding World Trade

WITH the war in Europe ending in a climax, and with a new pattern for the defeat of Japan already outlined, American business is confronted with the need for an immediate decision on long-term economic policy.

What is this country's foreign trade program to be after the war?

No intelligent appraisal of all the factors any longer can allow us to postpone considering the issue merely because, in the past, foreign trade absorbed hardly eight per cent of our production.

Actually, a whole new set of conditions was injected into the picture by the first World War; but we persisted in ignoring these new factors.

Almost overnight, the United States was transformed from the largest debtor nation in the world to the second largest creditor nation. At the same time, we made faster technological progress than any other nation. Thus we created the need for more dollar exchange on the part of the rest of the world and simultaneously made it harder for other nations to earn dollars.

Today, as another, far vaster war is approaching its end, these changed circumstances are magnified. America has new responsibilities—to itself and to the world.

Our war-inflated industrial capacity cannot be allowed to drop back to peacetime levels without causing a domestic crisis which we do not want.

And, because so much of the world is geared to the American industrial machine, we can no longer completely isolate the repercussions of a largely self-sufficient trade program or of an unplanned foreign trade program. Either would inevitably set the stage for the next world war.

If we are going to prepare ourselves intelligently to cope with this new problem, we must acknowledge certain basic principles:

World trade cannot be rebuilt simply by attempting to restore prewar flows of goods. The war has so completely changed the economic life of many countries that it is necessary to develop new trade relationships. The East Indies, for example, may find the demand for their rubber considerably reduced; the United States may, to a large extent, have to cease exporting cotton; Japan will need to find new substitutes for much of its exports of silk; the British will need new markets to replace the income which they formerly derived from their large overseas investments.

We cannot expect markets for our goods, at home or abroad, unless we find ways of buying more supplies

from more people at home or abroad, so that they will have more dollars to spend.

And we probably cannot create increasing buying power abroad without first exporting more of our technical skills—our engineers, our production and management men—to build new markets for our own supplies.

What is needed to rebuild the world's economic system?

1. Most basic of all, of course, are stable governments which command popular support. In the absence of strong governments, currency stability cannot be achieved.
2. Most war-stricken countries, for a year or two, will need substitution loans, because they will require far more raw materials, equipment, and live stock than they can pay for out of current production.
3. Loans, however, are only a stop-gap, though often a necessary one. The most important task rehabilitation loans will be the creation of better opportunities for war-stricken countries to sell to the rest of the world, particularly to the United States, South America, South Africa, and India. The average of way to set completely free the ability of a country to sell. Indeed, it is surprising what large supplies of certain commodities Western countries have on hand even before devastated industries have been rebuilt. In the United States, for instance, we found shoes almost non-existent, but they found food more plentiful than in Britain.

Better opportunities for war-stricken countries to sell would create opportunities for them to buy the goods they will require to restore shattered industries and depleted farms, and would help these countries to get rid of the exchange controls which are now universal. So long as a country is able to export its exports only slowly and partially, and is dependent upon foreign loans to prevent the depletion of its treasury, as long will it continually preserve exchange controls and other restrictions on its exports. That is why long-distance traffic through an International Monetary Fund or an International Investment Bank, no matter how limited contributions to the removal of trade restrictions.

4. Permanent monetary and credit arrangements are needed to protect nations against temporary pressure upon their currencies, to permit necessary changes in exchange rates to be made on an orderly manner, and to assure that governments never again will repeat the "beggar-my-neighbor" policies of 1919 and 1932.
5. Finally, the world needs a reversal of the trend toward economic self-sufficiency, which received a strong impetus from the first World War and so from stronger ties from the great depression of the Thirties. This does not mean that the efforts of many war-ravaged producing countries to develop their industries should be opposed. During the late Nineteenth Century and the first part of

this century, the international specialization of production was carried too far, with the result that many nations became dependent for a large part of their standard of living upon the export of one or two raw materials—coffee, sugar, rubber, silk, wheat, wool and meat. Between the two World Wars, however, the pendulum swung much too far in the direction of self-sufficiency. Some former producing industrial countries of Europe (Italy, France, and Germany) even attempted to become self-sufficient in wheat, silk, and sugar. So limited are the natural resources and technical skills of most countries that such one-finish policy claims which it can produce only at prohibitive cost. Between the extreme specialization of the late Nineteenth Century and the more recent trend toward extreme self-sufficiency, a happy medium should be sought.

What role should the United States play in reconstructing the world's international economic system?

There are those who suggest that the United States be a more or less permanent Santa Claus. They believe that an excess of exports could be financed only by "loans"—loans that would eventually turn into gifts, after producing better controversy over why the "debtor" country did not meet its obligations. The persons who suggest that full employment can be brought only by the excess of exports are in effect saying that our economy cannot become self-supporting. That is a confession of economic defeatism which a young and vigorous nation should not be willing to make.

The most constructive contribution which the United States can make to world reconstruction is to make itself self-sufficient.

Properly here means a large demand by our industries for exports. The more we export, the easier will it be for foreign countries to meet their large and urgent needs for goods. In 1938, with a gross national product of \$90 billion, our exports were \$5 billion. After the war, with 60 million people employed and a gross national product of \$150 billion, our exports would be about \$7 billion or \$8 billion.

Not only should the United States make itself prosperous, but it should keep itself prosperous. So important is the United States in the world economy that a depression here is bound to produce a disastrous drop in the price of raw materials throughout the world and to throw many countries into an economic crisis.

The United States should support the principle of a large trade to protect the exchange of the world from temporary pressures. We should not permit differences over the details to prevent its establishment in simple time to be available during the critical period when war-stricken countries will need goods for an excess of their immediate ability to pay for them. Some arrangement, even though imperfect in detail, will be infinitely superior to no arrangement.

Finally, the United States should take the lead in breaking down barriers to trade. We are the logical country to do this, partly because of our immense domestic market, and partly because for most of the last twenty-five years this country has been able to sell other countries more goods than they have been able to sell to us. One of the greatest contributions which the United States could make to a second and expanding world economy would be to limit our imports, as soon as possible, up to our exports. In other words, the United States, in the long run, should be hard to

barren from but easy to sell in. The United States should implement this policy (1) by continuing the negotiation of reciprocal reduction in duty, and (2) by accepting exchange rates which make foreign currencies cheaper in dollars than they were in 1929. So great will be the world's need for goods by that time we can be sure that any dollar exchange earned by sales to us will be converted into American-made goods and will tend to larger exports.

Time was when the United States obtained about eight per cent of its standard of living by sending goods abroad and buying back other goods. Before the war, however, we were getting less than five per cent of our living by international trade. After the war, we were gradually to raise the proportion of our standard of living obtained by trading with other countries to ten per cent of domestic production, our exports would be about \$15 billion or \$16 billion a year. Our people would be able to buy many things which they now cannot afford, and scores of countries which export raw materials and luxury products would feel the stimulus of rapidly expanding markets. Their expanded demand for food, building machinery, mining machinery, machine tools, agricultural implements, locomotives, railroad cars, electrical equipment, trucks, automobiles, and a multitude of products of our factories would create a million or more additional jobs in our factories.

Although the United States would use its standard of living by increasing its imports and its exports, it should honestly face the fact that the increasing share in production and employment would temporarily be painful for some people. The increase in imports would be in commodities which other countries can produce for less than the cost at which much of our output is produced—such as wheat, wool, copper, sugar, silk and oils, wine, winter vegetables and fruit. The increase in our exports would come from those industries in which our superiority is greatest—particularly the manufacturing industries. Finally it would be advantageous, to the country as a whole, to shift a million or two workers from agriculture, where they earn about 40 cents an hour at best, to manufacturing, where they earn better than 80 cents an hour.

The very fact that in economic matters the rest of the world is dependent upon the United States, creates our country to great demands and to easy and widespread misunderstanding. The United States must be willing to help the rest of the world, but it also should take the form of assisting other countries to help themselves. Now in all history, but in no other, has one country been able to give the world a more standard of living, to foster conditions under which peace flourishes. What greater tragedy could there be than to make the sacrifices which we are now making and fail to seize this chance to create a world of hope and opportunity in which the spirit of goodwill among nations is able to flourish.

James H. McLaughlin, Jr.

President McGraw-Hill Publishing Company, Inc.



RESISTOFLEX instrument lines on PV-1 Bombers do not swell, crack or slough off

They have never failed from vibration or flexing.

There's no danger of loosening or internal erosion of Resistoflex instrument lines on the Navy's hard-hitting Vega "Veebans" (PV-1) Bombers. These hose assemblies have a tube of Comper, the chemically inert elastomer. As formulated for aircraft service, Comper is completely impervious to hydraulic fluids, lubricants, gasoline, fuel blends... even those with the highest aromatic content. Skin friction and turbulence are reduced to

a minimum, too, by the glass smooth surface of Comper.

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TRANSPORT

CAB Hearing Applications Of 6 Lines for Hawaiian Route

Maritime Commission lawyers bolster case of Matson Navigation Co. in attempt to obtain certificate for steamship firm; Department of Justice, opposing, cites anti-trust laws.

By DANIEL S. WENTZ II

Six applicants for new routes between the West Coast and Hawaii, one a steamship company, sought last week to break Pan American Airways' monopoly in the Pacific in the Civil Aeronautics Board's first wartime hearing on overseas air routes.

Testimony indicated that the case involves considerably more than a finding of convenience and necessity. The board, however, will base its decision on whatever evidence the applicants can adduce to demonstrate that the public interest requires more air service over the route than is presently authorized.

Because of the war, Pan American has not operated the route commercially since 1941, although continued to do so. The president of the Matson Navigation Co., a steamship line, as one of the applicants, raised the old question of control of airlines by surface carriers.

Maritime Commission Intervenes—Matson's position was considerably fortified by attorneys of the Maritime Commission, which has intervened in the case with the avowed intention of getting before the board the shipping companies. The commission's chairman, Rear Admiral Henry S. Lead, has long been an outspoken critic of the CAB's position that air and surface forms of transportation shall be separated. This proceeding marks the first concrete action by the commission in support of its Chairman's views.

Across the capital table were attorneys of the Department of Justice, another intervenor, who oppose the Maritime Commission's stand. The Department of Justice's position, based on the anti-trust laws, is consistent with CAB's interpretation of the declaration of policy contained in the Civil Aeronautics Act.

As interpreted by the Board, this excludes surface carriers from controlling services except as supplementary services to their surface operations.

Pressure—Proof that the airline service requested by a surface carrier would be supplementary to its surface operations has never been supplied to the Board's satisfaction, but Matson Navigation Co. hopes to do so in the present case. With Maritime Commission support, it is expected that considerable pressure may be brought to bear.

The question of "chosen instru-

ment" vs. competition was argued at length in the hearing program. The policy of regulated competition is expressly set forth in the Civil Aeronautics Act under which the CAB functions, but repeated efforts to place discussions of the question on the record have tended to delay the proceedings. The intervenors allowed considerable latitude in admitting evidence, but pointed out repeatedly that the Board's decision must be based on findings of fact rather than opinion.

Fares—A future problem was forecast by exhibits of several applicants announcing fares they plan to charge for the Los Angeles-Honolulu trip. Pan American's pre-war one-way fare was \$378.92. Matson has announced a plane fare of \$175 one way, United Air Lines is set at \$125, but Pan American has undercut all other proposed rates with an announced one-way fare of \$96.

These figures have led qualified observers to conclude that a rate war may develop strong international air services. CAB, however, could generously prevent this by exercising its power to prevent discriminatory practices.

Kennedy Testifies—Hawaii Airlines, Ltd., opened the case with its president, Stanley C. Ken-



NEW CHEMICAL DE icing LAQUER:

Outstanding results are claimed for a chemical de-icing lacquer for propellers on which development has been announced by Hamilton Standard Propellers Division of United Aircraft Corp. Called Icelite, the black compound, which has a consistency about that of glycerine, can be painted or sprayed on propeller blades. Picture at left shows application to an American Airlines plane, and at right during flight. Tests were made by American last winter on 20 of the Republics for 6,000 hours. Hamilton says the line is equipping 39 of its planes with the substance, and other lines are conducting further tests this coming winter.

edy, as volume. Kennedy argued that air service in the mainland be provided by his Hawaiian carrier rather than a larger air line which might regard the route as a mere segment of a larger system. Pan American's monopoly might be broken, he said, if Hawaii is to outgrow her colonial status.

Mission Navigation Co., followed Hawaiian Airlines in the presentation of its case.

The proceeding includes applications of Western Air Lines, United Air Lines, Northwest Airlines, Rice School of Aeronautics, Inc., and Ryan Aeronautical Co. Hawaiian Airlines, American Airlines, the Department of Justice and the Interior, the Maritime Commission, the Inter-Island Steam Navigation Co., and the Ports of Seattle and Tacoma, Wash., and Portland, Ore., are intervenors.

CAB Examiners Thomas L. Wrenn and Lawrence J. Kotler are conducting the case, which is continuing this week.

PCA Capital Traffic At 15-Year High

The steadily increasing impact of Washington as the pivot of PCA's system is reflected in the 38,261 passenger departures in July—highest in the 15 years PCA has been serving the capital. PCA now schedules 35 daily flights from Washington compared with 18 before the war. Flight departures likewise rose from 552 in June to 748 during July.

The line's net earnings also have been increasing—\$60,000 in May, \$116,000 in June, and \$165,000 in July.

\$100,000 Monthly Cash—Net income after taxes for July is estimated at \$100,000. Indications are that PCA's management may like to achieve their goal of \$100,000 monthly net after taxes if wartime load factors can be maintained.

Calif. Eyes AA Rates

Investigation into possible intrastate aspects of American Airlines' operations in California is to be conducted in October by the California Railroad Commission. If the Commission finds American's operation is within its jurisdiction, and the airline is engaged as common carrier within the state, American may be required to file intrastate charges, fares and classifications.

Payroll Bond Plan

The Treasury has provided the airlines with a report on the operation of the payroll security plan that shows a coverage of more than half the employees of 17 companies listed were participating in the modified War bond purchase in mid-1945.

Companies participating were not listed by name, but the report showed that the percentage of employees to raise between 94.3 percent and 97.5, with an average of 94.4. Estimated percentage of participants paid deducted ran from a high of 16.8 to 3.5, and the average was 9 percent. Percentage of total payroll deducted varied from 16.2 to 1.6, with an average of 5.2.

Ryan Sees Frisco, LA At Air Crossroads

An on-the-ground study of the strategic positions of Los Angeles and San Francisco as potential crossroads was made by Oswald Ryan, member of the Civil Aeronautics Board, during a West Coast visit.

At Los Angeles, Ryan said he was impressed with California's air-mindedness and aeronautical facilities, and described the two cities as standing at the crossroads of two great natural air "highways." Ryan said the Chicago and western Europe to the islands of the South Pacific.

Sees Foreign Trade Growth—He believes development of our foreign trade is going to be of much greater importance to the nation's economic life in the future than it ever was in the past, "because we must depend more on the foreign trade in the post-war period. It is the post-war period, foreign markets to sustain the transoceanic production capacity which has been developed by our people."

"Air transportation will be a great instrumentality for the development of this foreign trade, and the United States has attained a position of preeminence in this field."

Lag in New Latches

Not all airline operators using DC-3's were able to meet the Sept. 1 deadline for installation of the new type single-handle cable door latch. Civil Aeronautics Administration field inspectors may check

planes with the airlines, which have been urged to make the installations as soon as they can get the equipment, if they have not already done so.

Teletype to Link Northwest Stations

Installation of a system-wide private line teletype network, linking all stations on the Chicago-Twin Cities-Pacific Northwest route, to speed handling of reservation messages, has been undertaken by Northwest Airlines, Inc.

K. R. Feltgus, NWA vice president in charge of operations, says increases in traffic volume on Northwest's present routes and anticipated increases on the proposed extension of NWA service to Detroit, Cleveland and New York have made the full-time teletype system necessary. Up to now most reservation messages have been transmitted by radio teletype. The airline will retain its radio telephone system for air-ground communications and its radio teletype for station-to-station messages.

PCA announces it also has linked its entire network of stations by private line teletype in a move that will leave radio circuits free for handling of ground-to-air communications.

Ports and Courts

Just off the press is a book, *Airports and the Courts*, analyzing Federal, state and local airport legislation and court decisions on acquisition, operation, maintenance and zoning of airports.

Author is Charles R. Rhym, Washington lawyer, who is author or co-author of other books and articles on aviation and airport law. His newest work analyzes court decisions and aviation and airport statutes, citing official sources with copious footnotes.

Catch-up—Subjects covered include airport acquisition, condemnation of property for airport purposes, airport leases, regulations governing use of airports, taxation of airports, damage claims against airport operators and operators, air space rights of aviators and landowners and airport approach protection and airport zoning.

Publisher is National Institute of Municipal Law Officers, Washington.

Royce Choice Aids Competition Policy

Selection as head of Airline Committee for U.S. Air Policy means new drive into go-ahead favoring free flight for world routes.

By MERTIN MICKEL

Selection of Alexander Burgess Royce, New York attorney, to lead the Airline Committee for U. S. Air Policy, puts new life into the long-borned-for regulated competition in post-war international air transport. His problem is to keep it there.

The Committee needs suddenly a few weeks ago from a year's inactivity, when it appeared the aviation subcommittee of the Senate Commerce Committee was about to issue a report favoring a domestic monopoly, or, at least, a monopoly, type of international operation. Representatives of the 17 airlines composing the policy committee worked hard to forestall such a report, and none was issued.

Capital Group Recognized—That, proud of its newfound strength, the group reorganized its official representation in Washington. Sam J. Solomon, chairman of Northeast Airlines, stepped down. A five-man executive committee was appointed and Royce was retained as special counsel. The aviation world's study of the Committee's stand, he became chairman.

All indications at the recent press conference at Hotel Carlton, Washington, led Royce to say that Royce, with the Committee's help—will wage a hard fight and keep it going. He reviewed the Committee's stand for "reasonably complete competition and private ownership and management." He was asked to join, he said, to hold off attacks on that position from other airlines. That meant Pan American Airways and United Air Lines. "The program of the community group plan advanced as legislation introduced by Senator Phil McCarran."

Backlog in Government—Royce's selection in Washington have notified him that government departments universally favor the Committee's view, which he hopes to explain does not imply that all of the airlines will be flying all overworld routes. "We do not, argue against competition." There may be routes, in fact, that would only one carrier, but where that



LAST MILITARY FLIGHT:

W. J. Anderson (left), flight operations director for United Air Lines, is briefing on Capt. Thos. Wood of the Air Transport Command the top book of the last domestic military transport plane operated by United. Sherwood is officer in charge at Chicago for the domestic transport division of the ATC. Although this marks the end of air domestic ATC operations, the equivalent of 2,574 coast-to-coast flights, United still is flying to Alaska and across the Pacific for the Command.

is a probability, "competition means the right to come up and bid for that route."

Royce and the Committee do not recommend that existing routes be taken away from Pan American, but they do feel there should be competition where new routes are granted.

Equipment—This is the view the chairman believes is shared by Government departments, including Army and Navy. And in the latter connection, he believes the armed services are "eager" to turn back equipment as rapidly as it can be spared. The Committee hopes international air transport on the basis it advocates will have equipment and certification to start when the European phase of the war ends.

Little concern was expressed for the future course of aviation development by other countries. "It makes no difference what Russia or France does," Royce says. He added that smaller countries may be expected to operate a domestic instrument, for the sake of prestige and expressed doubt that Great Britain will have a chosen instrument, feeling that the British are undecided on their post-war air policy and will be influenced by what the U. S. does.

One thing of which the committee is certain is that after the war

governments will not negotiate landing and transit rights with individual airlines—that such arrangements will be made strictly on a government-to-government basis.

As it has pointed out frequently, the committee feels that the Civil Aeronautics Act of 1938, as it now stands, amply covers the international as well as the domestic aspect of aviation. The act calls for competition, and one of the prime objectives of Royce and his group is to make sure that if Congress feels it should be changed, such changes be made only after extended public hearings.

Flight Tests on "39"

There is a strong possibility that flight tests may be run on the Model 39, Consolidated Vultee's Liberator-Lander, at the Cincinnati Airport, Ohio, this week. The tests will be run at Vanland, Ohio. The tests are testing military plane types that are surplus and eligible for sale.

Type tests on such transports as the Commodore, Stinson, and Consolidated may be run at Westchester's plants. Some CAA officials see a likelihood that the model 39 will be isolated, and perhaps tested at the base. If so, the tests will draw more than usual interest from Consolidated's own admission the ship "does not conform to outmoded CAB regulations."

TACA Modifies Planes

Disposition of eight planes recently acquired by TACA has been announced by the airline. Two DC-3's are being modified for South American service. Two Beechcraft will be down to Rio in 30 or 40 days for Brazilian service, and two more were obtained for TACA's new Venezuelan operation.

A Burrell UB-14, built in 1935 and modified by the line a year ago for Latin America service, has gone to Hartford, Conn., for propeller-engine tests.

ALMA-WAL Agree

Satisfactory agreement has been reached between the Air Line Mechanics Association and Western Air Lines in the dispute over reclassification of Inland Air Lines employees affected by Inland's acquisition by Western. The Association held agreements with both lines.

OVERSEAS TRAVEL BY FLYING LEVIATHANS?

The Makers of Fafnir Aircraft
Ball Bearings Present Number
Five in a Free-riding of Ex-
tra Flight Possibilities—with
Designs and Models Created by
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FEATURES—ENTIRE POWER UNIT IS
SEPARATE FROM MAIN BODY OF PLANE
MOUNTED IN FOREMOST DECK ENTIRE
WIDTH OF PLANE. PASSENGER
ACCOMMODATIONS EQUAL TO LARGEST
TRANSATLANTIC LINERS.

This suggested 1934 transoceanic liner, sweeping back and wings into an integral 550-foot span, provides day and night accommodations for 400 passengers and 155 crew members. It features a bridge 170 by 65 feet, a spacious dining room, recreation decks, lounge, barber shop, beauty salon—all conveniences of a luxury hotel. The auxiliary wing houses engine room, machine shop, and engine reserve motors. Air conditioned through-

War has spoiled many people for slow transportation, particularly where long distances must be traversed. Therefore, one important aim of postwar aircraft designers is reported to be large and powerful planes capable of carrying many passengers swiftly and comfortably to overseas destinations.

Not the least of the problems posed in the construction

of such "flying Leviathans" will be that of easy and instant control of immensities of wing and hull, and the full utilization of enormous motive power. There, Fafnir engineering ability and experience will serve—as they have served through 15 years of modern aircraft design. With Fafnir Ball Bearings, friction will be a gentle red ant and sensitive, sure response will be engineered into

ent. This design represents an estimate in passenger transportation. The motor of flight may be 35,000 miles, bringing world centers into proximity measured in all within a 24-hour day.

all turning points of power transmission and control. Aircraft designers have learned that, whenever a friction problem threatens flying efficiency, Fafnir produces a specially designed bearing to meet the need. Fafnir works toward victory now—and will work toward great new aircraft achievement when peace returns. The Fafnir Bearing Company, New Britain, Connecticut.

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17 YEARS OF AIR EXPRESS PROGRESS:

Air left in the scene at Hattley Field, N. J., 17 years ago this month as the New York to Chicago leg of the first scheduled air express service across the continent was started by four airlines and Railway Express Agency. Coast-to-coast schedules then called

for 24 refueling stops and required 26 hours. Now planes such as American's DC-2 or eight operate on a 15- to 17-hour schedule. Volume has increased from 1929's 17,000 shipments to more than 1,500,000 in 1946.



UAL Supplies Data On Alaska Weather

Meteorology office furnishes flying information to NATS, AAF, Pan American and Northwest Airlines.

United Air Lines, through its part in setting up the Alaskan Air Transport Meteorology Office, now gives weather flying data to crews of the Naval Air Transport Service and Army Air Forces, United, Pan American and Northwest Airlines. Howard Hoffman, United's weather chief at Portland, was called by Capt. John McC. Hodgson, head of United's Alaskan operations, after the Air Transport Command assigned the line to an Alaskan schedule. Hoffman worked at the meteorology office after studies and conferences with U. S. Weather Bureau officials, Pan American meteorologists, and others operating for the ATC.

► Instrument Flying—United says its pilots, with ATC's aid, have done instrument flying to greater degree than in domestic service. The carrier has experienced no serious injury to planes or crews in operating 1,800 scheduled trips, completing about 90 percent of trips planned.

PCA Streamlines Name and Insigne

The public will know Pennsylvania-Continental Airlines as "PCA," its industry designation, after Oct. 1, when the company is placing in effect a new name policy and insigne.

In place of the longer name, the only airline with principal headquarters in Washington is making the change, which embodies the slogan "The Capital Airline," to reflect its broad-based scope and provide an identity "easily grasped and easily retained by America's air travelers."

► Insigne Replaced—The new de-



New PCA Insigne: PCA's new insigne was decided on after scores of designs had been considered and rejected. The one finally adopted (shown above) was created by John Watersfield, Washington commercial artist.

sign will replace present insigna on PCA's planes, its offices and facilities, and its advertising.

At least one other name change in the air transport industry is reported in prospect. Transcontinental & Western Air is expected to designate itself Trans-World, calling attention to its plans for world routes.

Resume COD Service

Pan American Airways announced resumption of C.O.D. and air express collect services from the U. S. to more than a dozen Latin American countries, including Guatemala, El Salvador, Honduras, Costa Rica, Trinidad, Dominican Republic, Haiti, Cuba, Puerto Rico, Canal Zone, Panama, St. Thomas (Virgin Islands), Dutch Guiana and Venezuela. Because of the war, these services had been suspended since August, 1938.

Coast Beacon Service

For maintenance of beacons and landing fields in the area between San Francisco and Salt Lake City, CAA is establishing an office and shop in Wintersville, Nev., to be operated under its sixth regional office at Santa Monica, Calif.

what's going to happen in Aviation?

Will we go back to the handful of ordinary planes we had in 1940?

Can we conduct tomorrow's air commerce with less than 500 transport planes operating in and from the U. S.?

The average speed of our fastest trains is 50 miles-per-hour, of our fastest ocean liners just over 30. The average speed of our newest airliners is over 250 mph. and steadily increasing. Will U. S. industry and the American public pass up this one?

Shall we expect the driving force and flying enthusiasm of those railroads, boats, automobiles and progressive young ordinary airmen to evaporate without effect on progressive aviation progress?

There was a day when we couldn't sell automobiles because we didn't have the good roads, and there was no point to building roads because we hadn't the automobiles. If that hurdle had stopped us, a five-billion dollar industry would never have been developed.

Shall we believe that aviation progress will be "wakened" because airplanes now cost too much—or because they're too big to park in our garages—or because they're expensive to operate—or because it's too hard to learn to fly them?

What do you think?

Aviation's future is not speculative. The only speculation lies in how soon the industry will reach the full maturity of its inherent utility and of its social-commercial possibilities.

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Aviation News (America's oldest) serves the industry's basic needs for administrative, industrial and business information. *The Transport* serves the specialized needs of America's aviation-growing public carrier.

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Douglas Asks End Of Dump Valve Rule

Sounds on CAA, airlines and pilots for reaction to proposal

Douglas Aircraft Co., citing possibility that a "large number" of C-47s may be converted soon, has asked the Civil Aeronautics Administration, the airlines and their pilots for reaction to a proposal that fuel dump valve requirements of the Civil Air Regulations be waived where DC-3 airplanes are concerned. The company expressed the opinion that the valves, designed to permit the dumping of gasoline in event of a forced landing before fuel has been reduced by consumption of fuel to pre-specified levels, do not accomplish their intended purpose and will have to be deleted.

Experience has indicated that the valves will seldom if ever be used, and there is an opinion, the company found, that they have insufficient potential advantage to justify their use.

Weight Difference Misleading—Douglas pointed out that the small weight difference of 600 pounds between standard and provisional



ATA AUTHOR:

Ronald V. Robb, assistant director of research at the Civil Aeronautics Board, has written a monograph study of railroad transit privileges. The book is just off the University of Chicago Press.

weights is not a "considerable structural or performance hazard" in the operation of the plane, "and there is no sound reason for denying an airport a large part of it would be consumed in fuel. Furthermore, the DC-3 meets requirements for a standard weight of 25,200 pounds except that the landing speed requirement is exceeded by approximately one mile an hour.

Because of this, the manufacturer finds the "considerable weight" of dump valves an "unnecessary burden" to the DC-3 operator.

Early Reply Asked—In urging an early response to his suggestion, which was sent to the Air Line Pilots Association and Air Transport Association as well as the CAA, Douglas said plans for converting C-47s, the Army cargo versions of the DC-3, must be made several months in advance of actual conversion, and the obtaining and installation of dump valve systems will be difficult and take time. Therefore "and in view of the present trend in releasing aircraft," he urged that there be a ruling on the request will be made by CAA by the last of this month.

CAA was asked to present the request to the Civil Aeronautics Board if such procedure is necessary. Board sources said unofficially they were not surprised that the request was being made, particularly in view of testimony at CAA's weight hearing that the dump valves were not being used.

Contract Termination Releases UAL Pilots

Two dozen pilots and several ground employees of United Air Lines became available for the line's commercial operations the first of this month when its domestic contract operations with the Air Transport Company ended. The pilots and ground crews had been on full or part-time military contract duties.

Flying Rescind—UAL had chalked up 4,614 DC-3 miles flown for the ATC within this country when the contract was ended. Its flying for the ATC began between Army air depots in the U. S. in the spring of 1943. J. A. Herlihy, operations vice president, estimated total mileage on the domestic military transport routes at 23,399,600,000. Cargo amounted to 24,260,300 pounds, and there were 16,680 military passengers.

United's contract with the ATC for operations across the Pacific and to Alaska continues, unaffected by cessation of the domestic contract operation.

Quits ATA Board

Torrell C. Drinkwater, who recently left Continental Air Lines to go with American Airlines, has resigned as a director of the Air Transport Association.

The resignation was submitted because he was elected to ATA's board while he was continuing to be president of Continental. He now is route vice president for Americans.

His withdrawal from the board has been set down for consideration at the next board meeting, and the suggestion has been made that he continue as director until the association's next annual meeting, probably this fall.

San Mateo Port Plans

City officials at San Mateo, Calif., have formed a municipal airport committee to study plans of CAA and Shell Oil Co.'s aviation department, looking to post-war civilian flying needs. The city plans an initial 2,500-foot runway, 300 feet wide.

CAA spokesmen say any such support for San Mateo may have to be located south of the city. Mills Field airport for San Francisco is just south of San Mateo, and CAA spokesmen require six miles between a major airport and a major air terminal.

Route Applications Include Glider Line

Kansas City firm would now Waco with medium bombers.

In the first application of its kind filed with the Civil Aeronautics Board, Keith B. Van Zante of Kansas City asks CAB for a certificate authorizing a coast-to-coast scheduled property and mail service using C44A gliders towed by twin-engined medium bombers.

The route requested by Van Zante would connect Los Angeles and New York via Chicago and San Francisco, with stops at other major U. S. cities. He and his associates would purchase for the freight operation, medium bombers and gliders which have been declared surplus property. The application is the first attempt to translate successful war experience with towed cargo gliders into commercial terms, and may be the beginning of a series of similar applications.

A "Reduced Airline" pilot, Donald W. Penner, applied to CAB for a certificate to authorize scheduled freight service in North and South Dakota, Minnesota, Wisconsin and Iowa, and his associates plan to form a corporation known as North Central Airlines. Conventional type aircraft and possibly helicopters would be used.

A petition of Delta Air Corp. for temporary non-stop authorization between Meridian, Miss., and New Orleans, La. on AM 24, has been assigned a CAB docket number and will be handled as a regular application. The corporation requested would change Delta's service pattern in an important respect, and the Board feels that public hearings are desirable. Delta is seeking the authorization to permit more economical maintenance scheduling of its planes.

Another Brazil-inspired trade area feeder airline, Kansas City Airways, Inc., has applied to the Board for routes in Kansas, Nebraska, Missouri and Oklahoma. Of its \$699,000 authorized capital stock, \$100,000 has been tentatively subscribed. Brazil owns 35 percent of the subscribed amount.

Other applications include: Arthur A. Fogarty, Springfield, Miss., permanent certificate for scheduled service between Memphis and New Orleans; J. W. Smith, Jr., Tulsa, Okla., for scheduled service between Tulsa, Okla., San Antonio, Tex., Dallas, Tex., and Houston, Tex.; J. W. Smith, Jr., Tulsa, Okla., for scheduled service between Tulsa, Okla., San Antonio, Tex., Dallas, Tex., and Houston, Tex.; J. W. Smith, Jr., Tulsa, Okla., for scheduled service between Tulsa, Okla., San Antonio, Tex., Dallas, Tex., and Houston, Tex.

most freight service, which would be authorized with the proposed air certificate.

Always Flight, Inc., Chicago, for CAB authorization to transport four-wheelers of freight by existing air service.

Thiele Airlines, Inc., Chicago, scheduled and non-scheduled mail, express, and express operations.

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Study Weather Data

Airline requirements for weather service after the war will be considered by airline weather experts when the meteorological committee of the Air Transport Association meets at Kansas City Sept. 12 and 13.

Included in topics for the two-day meeting, part of which will be attended by Weather Bureau, Army, Navy, CAA and CAB officials, are post-war requirements, rationalization of CAA weather service, and a discussion of standardized weather reports, thunderstorm research and distribution of weather bureau bulletins.

DEFENSE STUDY: The group CHIEF DEFENSE STUDY, which is a committee of defense officials, is studying the need for weather service, with particular emphasis on the need for weather service in the event of a major attack on the United States. The group is also studying the need for weather service in the event of a major attack on the United States.

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Feeder Hearings Open in Denver

Rocky Mountain Case expected to set pattern for post-war local feeder-pickup service.

Civil Aeronautics Board opened in Denver last week its first regional feeder application hearing outside of Washington, with representatives of major airlines present as participants or observers.

CAB Examiner William J. Madden started the long job of hearing applications of more than a score of operators and prospective operators seeking new routes in the Mountain States. The Rocky Mountain Case, as it is called, may set a pattern for post-war local-feeder-pickup service.

Confusion—Early in the hearing there was indication of a conflict between existing feeder applicants and the major lines. The former contended they do not seek to compete with the major airlines, but desire only to provide service to small communities not on existing air service routes.

The applicants appeared unanimously in expecting an early end

Airline Ads Hit

Airline advertising again has received adverse criticism from DOT Director J. M. Johnson for what he believes its failure to deter travel.

In a report to earlier communications in which he asked a complete review of the airlines' advertising program, the Director questioned the necessity for airline announcement of schedules in newspapers and magazines, pointed out that such information appears in time tables and is available at airline offices, and suggested that airlines also take care of increased capacity.

He expressed the opinion that "it is of the utmost importance that the current level of airline advertising be suitably restrained. If this is not accomplished, we will face a breakdown in our entire travel demand program of the 4th Fleet, U. S. Navy, and the Brazilian government."

The matter is to be taken up by AEA's Advertising Committee this month.

CAA Traffic Mission Sent to Brazil

At request of the Navy, the Army Air Forces, and the Brazilian government, the Civil Aeronautics Administration has sent a three-man mission headed by Victor J. Koppie, assistant chief of the CAA's Airport Traffic Control Division, to undertake varied traffic control duties in Brazil.

At Santa Cruz, CAA personnel will supervise Brazilian control tower operations and will coordinate all planes manned by U. S. pilots to overcome language difficulties previously experienced.

Replace AAF Main-Air Force personnel now operating a control tower at Bahia, Brazil, will be replaced by CAA men.

CAA traffic control experts also will be stationed at Recife, Brazil, to act as an advisory capacity to the commander of the 4th Fleet, U. S. Navy, and the Brazilian government.

National to Start N.Y.-Jacksonville

National Airlines plans to start service Oct. 1 over its new route AM 21 between New York and Jacksonville, with two daily round-trip flights.

Nonstop's H. S. Parker, Jr., vice-president in charge of traffic, announced that all authorized stops on the route will receive service except Philadelphia, St. Norfolk, Va., and Washington, N. C. These will be bypassed because of airport conditions or military activities.

Plans and schedules between New York and other points on National's system have been established as follows (all fares oct. way):

New York-Jacksonville	1 hour 15 min.	\$24.00
New York-Philadelphia	1 hour 15 min.	\$24.00
New York-Washington	1 hour 15 min.	\$24.00
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New York-Philadelphia	1 hour 15 min.	\$24.00
New York-Washington	1 hour 15 min.	\$24.00

New Control System

Civil Aeronautics Administration engineers are installing new airport control systems at Chicago, Columbus and Marshall Field, Tampa, Fla., and CAA Administrator Charles E. Smith announced that Washington National Airport will be so equipped in the next 60 days.

Next on the list to receive the equipment are Richmond, Va.,

Nashville, Tenn., Charleston, S. C., and Savannah, Ga.

Requested by Army—Successful operation of the system installed at Presque Isle, Maine, led the Army to request CAA to place the system at additional locations.

Airports where approach control is in effect include Pittsburgh, Pa., Atlanta, Ga., Fort Worth, Tex., San Francisco, Calif., San Diego, Calif., and McComb, Ore.

Braniff Testifies On Mexican Route

Cries need of competition with Pan American in development of service.

T. E. Braniff declared last week he had undertaken development of Mexico routes, R.A. in Mexico to provide needed competition for Pan American Airways and its Mexican and Central American subsidiaries.

"Pan Americans has failed again to develop the possibilities of Mexico and Central America," the airline head testified. He appeared before two Civil Aeronautics Board committees hearing application for CAB approval of the purchase from him of a majority of Aerovias Braniff stock by Braniff Airways. The witness is president of both airlines.

Mexican Grade—As a result of grants by the Mexican government, a 7,000 mile route system was obtained for Aerovias Nacional, which the carrier's routes to Mexico, Havana, Panama and Los Angeles. Landing rights for the Mexican flag line, however, must be obtained at some future date.

Braniff said the intra-Mexican routes would recover service possibly within the next 60 days.

Eastern Air Lines, an intervenor, attempted to show that in participating personally with Central American governments for landing rights for the routes granted Aerovias, Braniff disregarded statements of the CAB and State Department disapproving the practice of getting landing rights by private rather than intergovernmental negotiation.

Stock Sale Involved—The present case involves CAB approval of the sale of a majority of shares of Aerovias stock worth \$300,000, to Braniff Airways. In the event CAB disapproves the acquisition, Braniff is seeking CAB approval of his continued ownership.

of the stock. This approval is required by the Civil Aeronautics Act.

CAB Examiners William F. Caskey and Curtis C. Henderson conducted the hearing.

CAB SCHEDULE

Oct. 11, Preliminary conference on Mexican routes, 10:30 a.m., CAB, 400 E. 12th St., Room 5, S. E. or AM 31.

Oct. 16, Generalized hearing on Mexican routes, 10:30 a.m., CAB, 400 E. 12th St., Room 5, S. E. or AM 31.

Oct. 18, Late-American route hearing, 10:30 a.m., CAB, 400 E. 12th St., Room 5, S. E. or AM 31.

Oct. 19, Late-American route hearing, 10:30 a.m., CAB, 400 E. 12th St., Room 5, S. E. or AM 31.

Oct. 20, Late-American route hearing, 10:30 a.m., CAB, 400 E. 12th St., Room 5, S. E. or AM 31.

Oct. 21, Preliminary conference on Mexican routes, 10:30 a.m., CAB, 400 E. 12th St., Room 5, S. E. or AM 31.

Oct. 22, Preliminary conference on Mexican routes, 10:30 a.m., CAB, 400 E. 12th St., Room 5, S. E. or AM 31.

Oct. 23, Preliminary conference on Mexican routes, 10:30 a.m., CAB, 400 E. 12th St., Room 5, S. E. or AM 31.

Oct. 24, Preliminary conference on Mexican routes, 10:30 a.m., CAB, 400 E. 12th St., Room 5, S. E. or AM 31.

Oct. 25, Preliminary conference on Mexican routes, 10:30 a.m., CAB, 400 E. 12th St., Room 5, S. E. or AM 31.

Oct. 26, Preliminary conference on Mexican routes, 10:30 a.m., CAB, 400 E. 12th St., Room 5, S. E. or AM 31.

Oct. 27, Preliminary conference on Mexican routes, 10:30 a.m., CAB, 400 E. 12th St., Room 5, S. E. or AM 31.

Oct. 28, Preliminary conference on Mexican routes, 10:30 a.m., CAB, 400 E. 12th St., Room 5, S. E. or AM 31.

Oct. 29, Preliminary conference on Mexican routes, 10:30 a.m., CAB, 400 E. 12th St., Room 5, S. E. or AM 31.

Oct. 30, Preliminary conference on Mexican routes, 10:30 a.m., CAB, 400 E. 12th St., Room 5, S. E. or AM 31.

Oct. 31, Preliminary conference on Mexican routes, 10:30 a.m., CAB, 400 E. 12th St., Room 5, S. E. or AM 31.

Oct. 32, Preliminary conference on Mexican routes, 10:30 a.m., CAB, 400 E. 12th St., Room 5, S. E. or AM 31.

The Board granted Pan American Airways 1 temporary exclusive right to serve Mexico City, San Francisco, and Los Angeles. This American Airlines service was to be maintained for 180 days after the date of the hearing. The Board also granted Pan American Airways 1 temporary exclusive right to serve Mexico City, San Francisco, and Los Angeles.

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Reconversion Philosophy

A HEARTENING DEVELOPMENT in the Washington scene is the forthright statement by the War Production Board on its approach to reconversion.

For several years the attitude of government war agencies has been that transition planning must be as stringent and as circumscribed as military planning. The whole trend of thinking has been toward a controlled economy. That economy would last as long as a single shell was being produced and as long as an individual plant had not been discharged from work for the armed services. But the announcement of J. A. Krug, acting chairman of WPB, indicates this trend has been reversed. Business is to be given full rein, and the end of necessity for war production may mean speedier unbacking of the straitjacket of wartime controls than thought possible previously. Rather than bottling up the normal drive of industry, WPB will act, if Mr. Krug's declaration can be accepted, as a consultant agency with the sole interest of freeing industry for civilian production and seeing that it gets the materials it needs.

This is encouraging, but it cannot yet be termed more than a trend. It reverses very sharply much earlier government thinking. WPB is not self-sufficient, and unless it is flanked by wholehearted acceptance by other agencies Mr. Krug's best intentions may remain only that.

The philosophy assumes that American business will accept the challenge that must be accepted by free enterprise. Not all industries and not all companies will be able to reconvert at one time. The business majority of these groups must meet the problem in their own way. Otherwise, the only alternative is continued government control of all industry for a period that no man today can foresee.

Pensions for Airlines

THE DOMESTIC AIRLINES are exploring advantages of an industry retirement pension plan for all of their employees. First discussion of such a project was held in 1939, but no decision was reached, although several companies adopted their own programs.

Advantages to employees are obvious. The man and woman who are building up the world's finest air transport system not only will be assured orderly and timely retirement, but an industry-wide plan would bring higher payments, made at earlier retirement age, than would be possible under individual company programs.

Promotion from the ranks would be encouraged

instead of replacement from outside sources. During high income tax eras, it is pointed out, wage earners do not enjoy maximum benefit of pay raises even when stringent government regulations permit such increases, but the money paid into a pension system becomes payable at a future time when taxes may be expected to have dropped.

Advantages to the industry also are obvious. A pension plan encourages long service, enhances morale and builds employee confidence. As long as individual companies maintain separate pension arrangements, while others have none at all, there is constant threat that one company system will be played against another to bring pressure for government-operated pensions similar to those set up by the Railroad Retirement Act.

A properly planned industry system probably would involve little more in administrative expense than would be met for any one of the major airlines. Employer payments could be deducted for income tax purposes.

No airline has yet met satisfactorily the actualities of retirement in the air transport industry, proponents of the plan point out. The cost has been prohibitive. With industry-wide coverage there would be a materially better chance of reducing costs to where pensions could be made available at ages which fit the future needs of the industry.

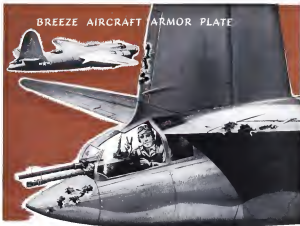
Proponents probably are too far-seeing for the majority of the airline executives of today, flushed with rosy hopes for a future that seems to have no discouraging aspect, but the industry must inevitably settle down. Promotion opportunities must in some distant day hit a plateau. These facts, in addition to important advantages which would accrue immediately, should be considered by the industry before it postpones action on a uniform pension plan case more.

Progress or More Inertia?

THE MEETING OF THE BOARD OF GOVERNORS OF THE Aeronautical Chamber of Commerce last week may prove to be a milestone in development of the aircraft manufacturing industry if top executives of the Chamber's member companies continue to devote personal attention, wholehearted and selfless support, to their national trade association.

The reorganization, although begun much too late, is virtually completed. The task has been accomplished since June 1 under direction of John Lee. The organization is there. The personnel is there. Policies have been drawn. But it means nothing unless the industry stands together from here on to meet its own mutual problems.

ROBERT H. WOOD



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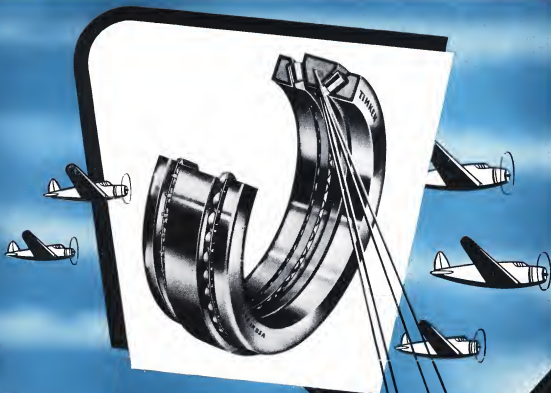
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